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R41

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OF

The School of Landscape Architecture

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BUILDING CODE

OF THE

CITY OF

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DEPARTMENT OF ARCHITECTURE,
HARVARD UNIVERSITY.

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MOSBY & HOUSEMAN City Printers RICHMOND, VIRGINIA 1908

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AN ORDINANCE

(Approved July 25, 1908)

TO PROVIDE

Rules and Regulations

CONCERNING THE

Construction, Equipment, Alteration and Repair of Buildings

AND

Concerning their Removal or Demolition When Unsafe or Dangerous

AND

Defining the Duties

OF

The Building Inspector

AND OF

The Board of Public Safety

Board of Public Safety.

CONSTITUTED AS FOLLOWS

MAYOR

CITY ENGINEER

CHIEF OF THE FIRE DEPARTMENT

MAYOR—Chairman

Ex-Officio.

Building Code

"B"

AN ORDINANCE

(Approved July 25th, 1908)

To provide rules and regulations concerning the construction, equipment, alteration and repair of buildings, and concerning their removal or demolition when unsafe or dangerous, and defining the duties of the Building Inspector and of the Board of Public Safety.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF RICHMOND.

1. That the regulations embraced in the following sections of this ordinance shall constitute and be designated and cited as "The Building Code,"

NEW BUILDINGS AND BUILDINGS TO BE ALTERED.

2. No wall, structure, building or part thereof, shall hereafter be built, constructed, altered, built upon, raised or moved in the City of Richmond, except in conformity with the provisions of this Code.

WHAT CONSTITUTES A BUILDING.

Any structure having a roof, whether with or without

one or more enclosing walls, shall be considered to come within the operations of this law regardless of the character of constructions or material.

FILING PLANS AND STATEMENTS.

3-a. Before the erection, construction or alteration of any building or part of any building, structure or part of any structure, or wall, or any platform, staging or flooring to be used for standing or seating purposes, or the erection of any such sign as is hereinafter provided for, and before the construction or alteration of the structure is commenced, except as hereinafter provided, the owner or his authorized representative, shall submit to the Building Inspector. a detailed statement on "Application Blanks" to be furnished by the Building Inspector, accompanied by two blue or black print plans and two sets of specifications, one of which, if approved, to be filed by the Building Inspector and the other, after being marked "Approved" to be returned to the owner; said drawings and specifications shall clearly set forth the method of construction proposed.

And the erection, construction, or alteration of said buildings, structure, wall, platform, staging or flooring, or any part thereof, shall not be commenced or proceeded with, until said application, statements, plans and specifications, shall have been so filed and approved by the Building Inspector.

And the erection, construction or alteration of such building, structure, platform, staging or flooring when proceeded with shall be constructed in accordance with such detailed statement of specifications and copy of plans as approved by the Building Inspector.

Nothing in this section shall be construed to prevent the Building Inspector from granting his approval for the erection of any part of a building, or any part of a structure, where plans and detailed statements have been presented for the same before the entire plans and detailed statements of said building or structure have been submitted.

TIME LIMIT FOR PERMITS.

b. Any permit which may be issued by the Building Inspector pursuant to the provisions of this section, but under which no work is commenced within ninety (90) days from the time of issuance, shall expire by limitation.

ORDINARY REPAIRS.

c. Ordinary repairs of buildings or structures, may be made without notice to the Building Inspector, but such repairs shall not be construed to include the cutting away of any stone or brick wall, or any portion thereof, the removal or cutting of any beams or supports, or the removal, change or closing of any staircase.

APPROVAL OR REJECTION OF PLANS.

d. It shall be the duty of the Building Inspector

to approve or reject any plan filed with him pursuant to the provisions of this section within ten (10) days.

DEMOLISHING BUILDINGS.

4. When plans and detailed statements are filed in the office of the Building Inspector for the erection of a new building, if an existing building or part of an existing building is to be demolished such facts shall be stated in the statement so filed.

MEASUREMENT OF HEIGHT FOR BUILDINGS AND WALLS.

5. The height of buildings shall be measured from the curb level at the center of the front of the buildings to the top of the highest point of the roof beams in the case of flat roofs; and for high pitched roofs the average of the height of the gable shall be taken as the highest point of the building.

In the case of flat roofs the measurement for height shall not preclude placing the roof beams level at the ceiling line and blocking up above the beams to get

a proper pitch for water on the roofing.

In case a wall is carried on iron or steel girders or iron or steel girders or columns, or piers of masonry, the measurement as to height for the wall, may be taken from the top of such girder.

When the walls of a structure do not adjoin the streets, then the average level of the ground adjoining the walls may be taken instead of the street curb level for the height of such structure.

MEASUREMENT FOR WIDTH AND DEPTH OF BUILD-INGS.

6. For the purposes of this Code the greatest horizontal dimensions of any building shall be considered its length.

And the next greatest horizontal dimensions its width.

PRIVATE DWELLING-DEFINITION OF.

7. A private dwelling shall be taken to mean and include every building which shall be intended or designed for, or used as, the home or residence of not more than three separate and distinct families or households, and in which not more than ten (10) rooms shall be used for the accommodation of boarders, and no part of which structure is used as a store or for any business purpose.

Two or more such dwellings may be connected on each story when used for boarding purposes, provided the halls and stairs of each shall be left unaltered.

APARTMENT AND TENEMENT HOUSES—DEFINITION OF.

8. An apartment or tenement house shall be taken to mean and include every building which shall be intended or designed for or used as the home or residence of more than three families.

This definition shall not apply to any two-story house even if occupied by three or more families.

LODGING HOUSE-DEFINITION OF.

9. A lodging house shall be taken to mean and include any house or building or portion thereof in which persons are harbored or lodged for hire for a single night or less than a week at any one time, or any part of which is let for any person to sleep in, for any term less than a week.

HOTEL—DEFINITION OF.

10. A hotel shall be taken to mean and include every building, or part thereof, intended, designed, or used for supplying food and shelter to residents or guests and having a general public dining room or a cafe, or both, and containing also more than fifteen (15) sleeping rooms above the first story.

An apartment hotel shall be taken to mean and include every hotel in which the apartments are rented or are intended or designed to be rented in suites, and for terms not less than one (1) month and in which there are no kitchens, dining rooms, or serving rooms within the apartments, but where a common dining room is provided for the use of the tenants.

OFFICE BUILDING—DEFINITION OF.

11. An office building shall be taken to mean and include every building which shall be divided into rooms above the first story and be intended and used for office purposes, and no part of which shall be used for living purposes, excepting only for the janitor and his family.

FRAME BUILDINGS-DEFINITION OF.

12. A frame building shall be taken to mean a building or structure of which the exterior walls or a portion thereof shall be constructed of wood.

Buildings sheathed with boards, and partially or entirely covered with four inches of brick or stone work, shall be deemed to be frame buildings.

Wood frames covered with metal, whether the frames are sheathed or not with boards, shall be deemed to be frame structures.

BRICK AND SAND.

13. The brick used in all buildings shall be good sound brick at least two-thirds (3) hard.

When old brick are used in any wall they shall be thoroughly cleaned before being used, and shall be good, sound brick, and all shall have at least one square end and be at least one-fourth (1) whole brick.

The sand used for mortar in all buildings shall be clean, sharp grit sand, free from loam or dirt.

LIME MORTAR.

14. Slaked lime mortar shall be made of one part of lime paste and not more than three parts of sand.

All lime used for mortar shall be thoroughly burnt, of good quality and properly slaked before it is mixed with the sand.

CEMENT MORTAR.

15-a. Cement mortar shall be made of cement and sand in the proportion of one part of cement, and not more than three parts of sand and shall be used immediately after being mixed.

The cement and sand are to be measured and thoroughly mixed before adding water.

Cements must be very finely ground and free from lumps.

CEMENT AND LIME MORTAR.

b. Lime and cement mortar shall contain at least one (1) part Portland cement, four (4) parts lime and ten (10) parts sand, or one (1) part Rosendale cement, two (2) parts lime and eight (8) parts sand.

CEMENTS.

 Portland cements can be used which will meet the following specifications

The minimum requirement for tensile strength of the neat cement after 24 hours set in moist air, shall be not less than 200 lbs. per square inch; after one day in air and six days in water not less than 500 lbs. per square inch.

Cements other than Portland cements shall be considered to mean such cements as will, when tested neat, after two days set in air be capable of sustaining without rupture a tensile strain of at least 60 pounds per square inch, and after one day in air and six days

in water be capable of sustaining without rupture a tensile strain of at least 120 pounds per square inch.

No cements which have become deteriorated by age or damaged by water or dampness shall under any circumstances be used. Whenever in the opinion of the Building Inspector cements are being used which do not conform to these requirements he may order the manufacturer or the manufacturer's agent to have the same tested or to furnish such tests as will prove the value of any cement that may be under investigation.

CONCRETE.

17. Concrete for foundations shall be made of at least one part of Portland cement, three parts of sand and six parts of clean broken stone of such sizes so as to pass in any way through a two and one-half (2½) ring.

In lieu of crushed stone, good, clean gravel, free from loam or clay, may be used in the following proportions—viz.:

One part Portland cement and five parts of sand gravel not exceeding a size which will pass through a three (3) inch ring.

The cement, sand, stone or gravel shall be measured and mixed as is prescribed for mortar.

All concrete shall be properly rammed into place until a cream appears upon and covers the entire surface after which, it must be allowed to set without being further disturbed.

QUALITY OF TIMBER.

18. All timber and wood beams used in any building shall be of good sound material, free from rot, large or loose knots, shakes, or any imperfection whereby the strength may be impaired and be of such size and dimensions as the purpose for which the building is intended requires.

TESTS OF NEW MATERIALS.

19. New structural material of whatever nature shall be subjected to such tests to determine its character and quality, as the Building Inspector shall direct.

The tests shall be made under the supervison of the Building Inspector, or he may direct the architect or owner to file with him a certified copy of the results of the tests, such as he may direct shall be made.

STRUCTURAL MATERIAL.

20. Wrought Iron.—All wrought iron shall be uniform in character, fibrous, tough and ductile. It shall have an ultimate tensile resistance of not less than 48,000 lbs. per square inch, and an elastic limit of not less than 24,000 lbs. per square inch, and an elongation of 20 per cent. in eight inches, when tested in small specimens.

Steel.—All structural steel shall have an ultimate tensile strength of from 54,000 to 64,000 pounds per square inch. Its elastic limit shall be not less than 32,000 pounds per square inch and test specimens

ruptured in tension, must show a minimum elongation of not less than 20 per cent. in eight inches. Rivet steel shall have an ultimate strength of from 50,000 to 58,000 pounds per square inch.

Cast Steel.—Shall be made of open hearth steel, containing one-quarter to one-half per cent. of carbon, not over eight one-hundredths of one per cent. of phosphorus and shall be practically free from blow holes.

Cast Iron.—Shall be of good foundry mixtures producing a clean, tough, gray iron. Sample bar, five feet long, one-inch square, cast in sand molds, placed on supports four feet six inches apart, shall bear a central load of 450 pounds before breaking. Castings shall be free from serious blow holes, cinder spots, and cold shuts. Ultimate tensile strength shall be not less than 16,000 pounds per square inch when tested in small specimens.

EXCAVATIONS.

21-a. All excavations for buildings shall be properly guarded and protected so as to prevent the same from becoming dangerous to life or limb.

TO PREVENT CAVING IN.

And shall be sheath-piled by the person or persons causing the excavations to be made when necessary to prevent the adjoining earth from caving in.

CARE FOR ADJOINING OR CONTIGUOUS WALLS,

STRUCTURES, &c.

Whenever an excavation of either earth or rock for building or other purposes, shall be intended to be, or shall be carried to the depth of more than ten feet below the curb, the person or persons causing such excavation to be made shall at all times, from the commencement to the completion thereof, if afforded the necessary license to enter upon the adjoining land and not otherwise, at his or their own expense, preserve any adjoining or contiguous wall or walls, structure or structures from injury, and support the same by proper foundations, so that the said wall or walls, structure or structures, shall be and remain practically as safe as before such excavation was commenced, whether the said adjoining or contiguous wall or walls structure or structures, are down more or less than ten feet below the curb.

If the necessary license is not accorded to the person or persons making such excavation, then it shall be the duty of the owner or owners refusing to grant such license to make the adjoining or contiguous wall or walls, structure or structures, safe, and support the same by proper foundations so that adjoining excavations may be made, and shall be permitted to enter upon the premises for that purpose, when necessary, where such excavations is being made.

If such excavation shall not be intended to be, or shall not be carried to a depth of more than ten feet below the curb, the owner or owners of such adjoining or contiguous wall or walls, structure or structures, shall preserve the same from injury, and so support the same by proper foundations that it or they shall be and remain practically as safe as before such excavations was commenced, and shall be permitted to enter upon the premises for that purpose, when necessary, where such excavation is being made.

PARTY WALLS.

b. Nothing in this Code shall be construed to change, alter or modify the law of this State in regard to adjoining or party walls, but every person making application for a permit to build, alter or change a building, where it will be, or probably will be necessary or proper to make excavations, changes or constructions which may effect the safety, strength or utility of party walls, shall in his plans and specifications for the work proposed to be done, fully set forth and provide a mode and manner of securing, maintaining or altering the party wall which will be so effected.

RETAINING WALLS.

c. When an excavation is made on any lot, the person or persons causing such excavations to be made shall build on the adjoining lot at his or their own cost and expense, a retaining wall to support the adjoining earth, if accorded the necessary license to enter upon the said adjoining lot, and not otherwise, and such retaining wall shall be carried to the height of the adjoining earth, and be properly protected by

coping. If the necessary license is not accorded to the person or persons making such excavation, then it shall be the duty of the owner or owners refusing to grant such license to build the retaining wall on his or their own property at his or their own expense with out recourse to the person or persons making the excavation on the premises adjoining thereto.

The thickness of a retaining wall at its base shall be in no case less than one-fourth of its height.

BEARING CAPACITY OF SOIL.

22. Where no test of the sustaining power of the soil is made, different soils, excluding mud at the bottom of the footings, shall be deemed to safely sustain the following loads to the superficial foot, namely:

Soft clay one ton per square foot:

Ordinary clay and sand together, in layers, wet and springy, two tons per square foot;

Clay or fine sand, firm and dry, three tons per square foot;

Very firm, coarse sand, stiff gravel or hard clay, four tons per square foot:

Or as otherwise determined by the Building Inspector.

BUILDING INSPECTOR TO BE NOTIFIED OF THE TIME

FIXED FOR SOIL TESTS.

Where a test is made of the sustaining power of the soil the Building Inspector shall be notified so that he may be present, either in person or by repreentative. The record of the test shall be filed in the office of the Building Inspector.

PRESSURE UNDER FOOTINGS OF FOUNDATIONS.

23. The loads exerting pressure under the footings of the foundation in buildings many than three stories in height are to be computed as follows:

For warehouses and factories they are to be the full dead load and full live load.

In stores and buildings for light manufacturing purposes they are to be the full dead load and seventyfive per cent. of the live load.

In churches, school-houses and places of public amusement or assembly they are to be the full dead load and seventy-five per cent. of the live load.

In Office buildings, hotels, apartment hotels, dwellings, apartment houses, tenement houses, lodging houses and stables they are to be the full dead load and sixty per cent. of the live load.

Footings shall be so designed that the loads will be as nearly uniform as possible, and not in excess of the safe bearing capacity of the soil, as established by Section 22 of this Code.

FOUNDATIONS.

24-a. Every building, except buildings erected upon solid rock or buildings erected upon wharves and piers on the water front, shall have foundations of brick, atone, iron, steel or concrete laid not less than eigh-

teen (18) inches below the surface of the earth, on the solid ground or level surface of rock, or upon piles or ranging timbers when solid earth or rock is not found.

PILES.

b. Piles of wood intended to sustain a wall, pier or post, shall be spaced not more than forty-eight inches nor less than twenty-four inches on centers, and they shall be driven to a solid bearing if practicable to do so and the numbers of such piles shall be sufficient to support the superstructure proposed.

No wood piles shall be used of less dimensions than five inches at the small end and ten inches at the butt for short piles, or piles twenty feet or less in length, and twelve inches at the butt for long piles, or piles more than twenty feet in length.

No wood pile shall be weighted with a load exceeding forty thousand pounds.

When a wood pile is driven to refusal, it shall not be less than fifteen (15) feet in ground; its safe sustaining power in tons shall be determined by the following formula:

Twice the weight of the hammer in tons multiplied by the height of the fall in feet divided by least penetration of pile under the last blow in inches plus one.

The Building Inspector shall be notified of the time when such test piles of wood will be driven, that he may be present, either in person or by representative.

The tops of all piles shall be cut off below the lowest water line.

When required, concrete shall be rammed down in the interspaces between the heads of the piles to a depth and thickness of not less than twelve inches, and for one foot in width outside of the piles.

CONCRETE PILES.

c. Piles of concrete or re-inforced concrete piles may be made of concrete either reinforced or plain.

Plain concrete piles must be molded in place by methods which are reasonably certain to secure perfect, full sized piles; reinforced concrete piles, if properly designed to resist the shock of driving, and if driven with a cushion to lessen the shock, or if put down by a water jet, may be molded, allowed to harden, and then driven or jetted into place.

In case concrete piles are used, whether reinforced or otherwise, their bearing power shall be determined by putting in one or more test piles and loading them after the Concrete is sufficiently hard.

The full working load in the structure shall not be more than one-half of the load under which the pile begins to settle.

In no case, however, shall a load on the concrete pile exceed twenty-five tons per square foot of cross-section of concrete, plus 6,000 pounds per square inch of any longitudinal steel reinforcement. Concrete piles shall always be made of mixture **not** leaner than one part cement, two parts sand and five parts gravel or broken stone.

The gravel or stone must all be capable of passing a one (1) inch ring and the concrete must be mixed by machinery, a batch at a time, and the concrete must be turned over completely at least twenty-five times. One complete revolution of the machine, if not too rapid, will count as one turning of the concrete.

RANGING AND CAPPING TIMBERS.

d. Where ranging and capping timbers are laid on piles for foundations, they shall be of wood, not less than six inches thick and properly joined together and their tops laid below the lowest water line; if above water line, heart pine or oak to be used for capping.

METAL IN FOUNDATIONS.

e. Where metal is incorporated in or form part of a foundation it shall be thoroughly protected from rust by paint or asphaltum, and be thoroughly imbedded in concrete, or by such materials and in such manner as may be approved by the Building Inspector.

FOOTINGS FOR COLUMNS.

f. When footings of iron or steel for columns are placed below the water level, they shall be similarly coated and enclosed in concrete for preservation against rust.

FOUNDATION WALLS.

25-a. Foundation walls shall be construed to include all walls and piers built below the curb level, or nearest tier of beams to the curb, or to the average level of the ground adjoining the walls, to serve as supports for walls, piers, columns, girders, posts or beams.

Foundation walls shall be built of stone or Portland cement concrete, brick, iron or steel.

If built of rubble stone or Portland cement concrete, they shall be at least four inches thicker than the wall next above them to a depth of twelve feet below the curb level and for every additional ten feet, or part thereof, deeper, they shall be increased four inches in thickness

BASE COURSE:

b. The footing or base course shall be of stone or concrete or both, or of concrete or stepped-up brick work, of sufficient thickness and area to safely bear the weight to be imposed thereon.

If the footing or base course be of concrete, the concrete shall be not less than twelve inches thick.

If the superimposed load is such as to cause undue transverse strain on a footing the thickness of such footing is to be increased so as to carry the load with safety.

For small structures, and for small piers sustaining light loads the Building Inspector may, in his discretion, allow a reduction in the thickness and projection for footings or base course herein specified.

STEPPED-UP FOOTINGS.

If stepped-up footings of brick are used in place of stone, above the concrete, the off-sets, if laid in single courses, shall not exceed two and one-quarter (2½) inches, and if laid in double courses, then each shall not exceed four and one-half (4½) inches, offsetting the first course of brick work, back one-half the thickness of the concrete base, so as to properly distribute the load to be imposed thereon.

GRILLAGE IN FOUNDATIONS.

c. Grillage beams of wrought iron or steel resting on a proper concrete bed may be used. Such beams shall be provided with separators and bolts inclosed and filled solid between with concrete, and of such sizes and so arranged as to transmit with safety the superimposed loads.

RUBBLE STONE WALLS AND PIERS.

d. All stone walls twenty-four inches or less in thickness shall have at least one header extending through the wall in every three feet in height from the bottom of the wall, and in every three feet in length, and if over twenty-four inches in thickness, shall have one header for every six superficial feet on both sides of the wall, laid on top of each other to bond together, and running into the wall at least two feet.

All headers shall be at least twelve inches in width and eight inches in thickness and consist of good flat stones.

No stone shall be used that does not bond or extend into the wall at least six inches.

Stones shall be firmly bedded in cement mortar and all spaces and joints thoroughly filled.

All footings or base courses shall project at least six inches on all sides beyond the bottom of wall or pier.

WALLS OF BUILDINGS OTHER THAN FRAME OR WOOD.

26. The walls of all buildings, other than frame or wood buildings, shall be constructed of stone, brick, Portland cement concrete, iron or steel or if approved by the Building Inspector other hard incombustible material, the several component parts of such buildings shall be as herein provided.

All buildings shall be inclosed on all sides with independent or party walls, except rear of the main top story above wing of dwelling houses which may be of frame covered with slat; or metal.

WALLS AND PIERS.

27a. In all walls of the thickness specified in this Code, the same amount of materials may be used in piers or buttresses.

BEARING WALLS DEFINED.

b. Bearing walls shall be taken to mean those walls on which the beams, girde.s or trusses rest.

BRICK AND MASONRY WORK.

c. The walls and piers of all buildings shall be properly and solidly bonded together and well filled with mortar. They shall be built to a line and be carried up plumb and straight.

The walls of each story shall be built up the full thickness to the top of the beams above except in ordinary dwellings.

All walls stopping off at a story shall be carried to the top of floor beams.

All brick walls shall be carried at least nine inches thick up to top rafters, except rear cornices of private dwellings, in which case the walls may be stopped at the underside of ceiling joist.

Walls or piers, or parts of walls and piers, damaged by freezing shall not be built upon, but shall be removed and rebuilt.

BRICK PIERS.

d. All piers shall be built of good, sound, hard, well-burnt brick laid in cement mortar, excepting that piers fronting on a street may be built of stone.

Cap stones corresponding to the trimmings of the front, proportioned to the weight to be carried, but not less than five (5) inches in thickness by the full size of the pier, may be used above the sidewalk for piers fronting on a street. For the capping of all other piers cast-iron plates of equal strength by the full size of the pier shall be set under all columns or girders.

Isolated brick piers shall not exceed in height ten times their least dimensions.

In cases of ordinary dwellings lime mortar may be used and this section shall not apply to porch pillars or piers bearing small load in dwellings.

STONE POSTS UNDER INTERIOR COLUMNS.

e. Stone posts for the support of posts or columns above shall not be used in the interior of any building.

PIERS AND WALLS OF COURSED STONE.

f. Where walls or outside piers are built of coursed stones, with dressed level beds and vertical joints, the Building Inspector shall have the right to allow such walls or piers to be built of less thickness than specified for brick work, but in no case shall said walls or piers be less than three-quarters of the thickness provided for brick work.

HEADING COURSES N BRICK WALLS.

g. In all brick walls every seventh course shall be a heading course, except where walls are faced with brick in running bond, in which latter case, every seventh course shall be bonded into the backing by cutting the course of the face brick and putting in diagonal headers behind the same, or by splitting the face brick in half and backing the same with a continuous row of headers.

Where face brick is used of a different thickness from the brick used for the backing, the course of the exterior and interior brick work shall be brought to a level bed at intervals of not more than ten courses in height of the face brick and the face brick shall be properly tied to the backing by a heading course of the face brick or an approved metal tie.

All bearing walls faced with brick laid in running bond shall be four inches thicker than the walls are required to be under any section of this Code.

If brick walls are laid in flemish bond, all headers must be full headers, if possible. Where this is not possible, the headers of every seventh course must be full headers.

ASHLAR.

h. Stone used for the facing of any building, and known as ashlar, shall be not less than four inches thick.

Stone ashlar shall be anchored to the backing and the backing shall be of such thickness as to make the walls, independent of the ashlar, conform as to the thickness with the requirements of sections 30 and 31 of this Code.

Unless each alternate course of the ashlar be at least eight inches thick and bonded into the backing, and then it may be counted as part of the thickness of the wall.

Iron ashlar plate used in imitation of stone ashlar on the face of a wall shall be backed up with the same thickness as required for a brick wall without ashlar.

MORTAR FOR WALLS AND ASHLAR.

28. All foundation walls, isolated piers, parapet walls and chimneys above roofs shall be laid in cement, or lime and cement mortar.

All other walls of brick or stone shall be laid in lime, cement, mortar, or lime and cement mortar mixed.

The backing up of all stone ashlar shall be laid up with cement mortar or cement and lime mortar mixed, but the back of the ashlar may be parged with lime mortar or coated with asphaltum varnish to prevent discoloration of the stone.

LIMITING THE HEIGHT OF BUILDINGS.

29. No non-fireproof building or structure hereafter erected shall exceed sixty-five feet in height

No Church Spire except it be built of fire-proof material or steel frame shall extend more than thirty (30) feet above the highest point of the roof of the main building.

Such height shall be the perpendicular distance measured in a straight line, taken at the center of the facade of the building, from the curb level to the highest part of the roof beams, not including in such measurement of height cornices which do not extend more than five feet above the highest point of the roof beams nor inclosures for the machinery of elevators, which do not exceed fifteen feet in height, or inclosures for tanks which do not exceed twenty feet in height above the roof beams and do not exceed in united area ten per centum of the area of the roof.

WALLS FOR DWELLING HOUSE CLASS.

30a. The expression "walls for dwelling house class" shall be taken to mean and include walls for the following buildings:

Apartment Houses

Apartment Hotels

Asylums, Club Houses.

Convents. Dormitories. Dwellings. Hospitals.

Hotels.

Laboratories. Lodging Houses. Parish Buildings.

Schools. Studios. Tenements.

Private Stables. Private Garages.

For buildings hereafter erected in the dwelling house class 27 feet or less in width between bearing walls or bearings, the minimum thickness of all independent surrounding and dividing walls in the same. carrying the loads of floors and roofs, shall be made in accordance with the following table, but no party wall shall be less than 13 inches in thickness, throughout its entire height.

Dwelling House Class—Brick Walls.
(Minimum Thickness in Inches)

		-					ì					
	Вазе	Basement.					STORIES.	ES.				
HEIGHT.	Stone	Stone or Con crete.	-	m	က	4	10-	9	. t• .	8	6	10
One Story	16	13	, თ									
Two Stories	30	13	13	6	:			:	:	:		
Three Stories	20	13	13	13	6		:	:	:		•	:
Four Stories.	20	18	13	13	13	13	:	:	:		:	:
l'ive Stories	70	18	13	13	13	13	13	:	:		:	:
Six Stories	34	22	18	13	13	13	13	13	:	:	:	:
Seven Stories	34	33	18	18	13	13	13	13	13	:	:	:
Eight Stories	88	27	22	18	18	18	18	13	13	13	:	:
Nine Stories	88	27	22	22	18	18	18	18	13	13	13	
Ten_Stories	32	31	27	22	33	23	18	2]	18	18	13	13
_ 1		_						5				

"SPECIAL NOTE"—In two-story dwelling houses change second item to nine (9) inches for first floor provided there shall be two chimney breasts not more than twenty-five (25) feet to centers, or on the side where stair well occurs (which well shall not be more than fifteen (15) feet in length) the stairway trimmers on each side of the well-hole shall be doubled and anchored to the wall and where they rest on the longitudinal partition they shall be thoroughly spiked together and to the plate of said partition.

When the above walls are used for bearing party walls in fireproof buildings, no portion of the walls shall be less than (18) eighteen inches in thickness.

If any story exceeds the height stated in section 34 of this Code, the thickness of walls shall be increased as stated in said section.

LIMITING THE HEIGHT FOR A SINGLE THICKNESS OF WALL.

b. No section of a wall of the same thickness shall exceed measuring vertically, the height provided elsewhere in this section and in sections 31 and 34 of this Code.

CLEAR SPAN THICKNESS.

c. If the clear span is to be over twenty-one (21) neet, then the bearing walls shall be increased four inches in thickness for every twelve and one-half (12½) feet or part thereof, that said span is over twenty-one (21) feet.

Or shall have instead of the increased thickness, such piers or buttresses as, in the judgment of the Building Inspector, may be necessary.

WALLS FOR WAREHOUSE CLASS.

31a. The expression of "walls for warehouse class" shall be taken to mean and include walls for the following buildings:

Armories Museums

Barns Office Buildings
Breweries Police Stations
Carriage Repositories Printing Houses

Churches Public Assembly Buildings

Cooperage Shops Pumping Stations
Court Houses, Railroad Terminals
Factories Refrigerating Houses

Garages Stables
Jails Stores

Libraries Sugar Refineries

Light and Power Houses Theatres

Machine Shops Warehouses

Markets Wheelwright Shops

Mills.

For buildings hereafter erected in the warehouse class, twenty-five feet or less in width between walls or bearings, the minimum thickness of all independent surroundings or dividing walls in the same, carrying the loads of floors and roofs shall be made in accordance with the following table:

BUILDING CODE.

		8€	finimu	se Class n thick	Warehouse Class—Brick Walls. (Minimum thickness in inches.)	Walls.				
	Base	Basement				STORIES	IES			
нкіснт.	Stone	Brick Stone or con- crete	1	~	m	4	ю	9	-	×
One Story.	30	18	13							
Two Stories	20	18	13	13	:	:	:			:
Taree Stories.	30	18	13	13	13	:	:	:	:	:
Four Stories.	24	22	18	18	13	13	:	:		:
FIVE Stories	88	27	22	18	18	13	13			:
SIX Stories	33	31	27	22	22	18	18	13	:	:
Beven Stories	32	31	27	27-	33	33	18	18	13	:
Lugat Stories	36	98	31	21	27	33	22	18	18	13
			_							

When the above walls are used for party walls in non-fireproof buildings, the thirteen inch sections of the walls shall be increased in thickness to not less than eighteen inches to carry the ends of the beams and the beams entering the walls shall be separated by at least four inches of brick work.

When used for bearing party walls in fire proof buildings, no portion of the walls shall be less than eighteen inches in thickness.

If any story exceeds the height stated in section 34 of this Code the thickness of walls shall be increased as stated in said Section.

CLEAR SPAN THICKNESS.

b. If there is to be a clear span of over twenty-five feet between the bearing walls, such walls shall be four inches thicker than in this section specified for every twelve and one-half feet, or fraction thereof, that said walls are more than twenty-five feet apart, or shall have instead of the increased thickness such piers or buttresses as, in the judgment of the Building Inspector, may be necessary.

OPENINGS IN DIVISION WALLS.

32. Openings in the brick division walls of buildings shall in no case exceed eight feet in width, nor more than ten feet in height, and such openings shall be provided with approved standard fireproof doors on both sides of the wall.

INCREASED THICKNESSES OF WALLS FOR BUILDINGS MORE THAN ONE HUNDRED AND FIVE FEET IN DEPTH.

33. All buildings that are over one hundred and five feet in depth without a cross-wall or proper piers or buttresses, shall have the side or bearing walls increased in thickness four inches more than is specified in the respective sections of this Code for the thickness of walls for every one hundred and five feet, or part thereof, that the said buildings are over one hundred and five feet in depth.

HEIGHT OF STORIES.

And if any story exceeds the foregoing heights, the walls of any such story and all walls below that story shall be increased four inches in thickness.

The height of a story shall be the perpendicular distance from the top of the finished floor in one story to the underside of the finished ceiling in the same story.

MEANING OF STORIES.

The first story shall be taken to mean the story the

floor of which is first above the basement, on the principal front.

The upper stories shall be taken to mean the stories the floor of which are above the first story and numbered in regular succession counting upwards.

MEANING OF BASEMENT AND CELLAR.

A basement shall be taken to mean that portion of a building the floor of which is below the curb level at the center of the front of the building, more than one foot, and not more than three-fourths of the height of said portion measuring from floor to ceiling.

A cellar shall be taken to mean the lowest portion of a building, the floor of which is below the curb level at the center of the front of the building, more than three-fourths of the height of said portion measuring from the floor to the ceiling.

INCLOSURE WALLS FOR SKELETON STRUCTURES.

35. Walls of brick built in between iron or steel colums, and supported wholly or in part on iron or steel girders—

Shall be not less than thirteen inches thick for sixtyfive feet of the uppermost height thereof, or to the nearest tier of beams to that measurement, in any building so constructed.

And the lower section of sixty feet or to the nearest tier or beams to such vertical measurement, or part thereof, shall have a thickness of four inches more than is required for the section next above it down to the tier of beams nearest to the curb level; and thence downward, the thickness of walls shall increase in ratio prescribed in Section 25 of this Code.

REDUCED THICKNESS FOR ADJOINING WALLS.

When two independent buildings of skeleton type of construction, and of the same height adjoin each other, the thickness of the said independent walls above the foundations for such sections where they adjoin may be not less than eight inches.

CURTAIN WALLS.

36. Curtain walls shall be taken to mean walls built in a building between piers or iron or steel columns, and being non-bearing walls—

Shall be not less than thirteen inches thick for sixtyfive feet of the uppermost height thereof or nearest tier of beams to that height.

And increased four inches for the lower section of sixty feet or nearest tier of beams to that height.

And thence downward the thickness of walls shall increase in the ratio prescribed in section 25 of this Code.

EXISTING PARTY WALLS.

37. Walls heretofore built for or used as party walls, whose thickness at the time of their erection was in accordance with the requirements of the then existing laws, but which are not in accordance with the re-

quirements of this Code, may be used, if in good condition, for the ordinary use of party walls, provided the height of the same be not increased without special permit from the Building Inspector.

WALLS NOT TO BE ADVANCED, ETC.

38. In no case shall any wall or walls of any building be carried up more than one story in advance of any other wall, except by permission of the Building Inspector.

WALLS TO BE BRACED.

39. The walls and beams of every building, during the erection or alteration thereof, shall be braced when required by the Building Inspector.

OUTSIDE ARCHES AND LINTELS.

40. Openings for doors and windows in all buildings of the warehouse class shall have good and sufficient arches of stone, concrete, brick or terra cotta, well built and keyed with good and sufficient abutments, or lintels of stone, concrete, iron or steel of sufficient strength, which shall have a bearing at each end of not less than four inches on the wall.

On the inside of all openings over four feet in width in buildings of the warehouse class in which lintels shall be less than the thickness of the wall to be supported, there shall be timber lintels which shall be beveled at each end and shall have a suitable arch turned over the timber lintel.

INSIDE LINTELS.

Or the inside lintel may be of cast iron, or wrought iron or steel, at d in such case stone blocks or cast iron plates shall not be required at the ends where the lintels rests on the walls, provided the opening is not more than six feet in width.

JASONARY ARCHES.

All masonar reches shall be capable of sustaining the weight and pressure which they are designed to carry, and the stress at any point shall not exceed the working stress or the material used, as given in section 80 of this Cod.

Tie rods shall be used where necessary to secure stability in accordance with current good practice.

PARAPET WALLS.

41. All exterior and division or party walls over fifteen feet high excepting where such walls are to be finished with cornice, gutters or crown mouldings, shall have parapet walls not less than nine inches in thickness and carried one foot above the roof.

But for warehouses, factories, stores and other buildings used for commercial or manufacturing purposes the parapet walls shall be not less than thirteen inches in thickness and carried two feet above the roof.

HOLLOW WALLS.

42. In all walls that are built hollow the same quantity of stone, brick or concrete shall be used in their construction as if they were built solid, as in this Code provided.

And no hollow wall shall be built unless the parts of same are connected by proper ties, either of brick, stone or iron, placed not over twenty-four inches apart.

HOLLOW BRICKS ON INSIDE OF WALL.

43. The inside four inches of any wall may be built of hard burnt hollow brick, properly tied and bonded by means of full header course every sixth course into the walls, and of the dimensions of the ordinary Brick.

Where hollow tile or porous terra cotta blocks are used as lining or furring for walls, they shall not be included in the measurement of the thickness of sucl. walls.

RECESSES AND CHASES IN WALLS.

44. Recesses for stairways or elevators may be left in the foundation or cellar walls of all buildings, but in no case shall the walls be of less thickness than the walls of the fourth story, unless reinforced by additional piers with iron or steel girders, or iron or steel columns and girders, properly insulated, and securely anchored to walls on each side.

RECESSES FOR ALCOVES.

Recesses for alcoves and similar purposes shall not have less than nine inches of brick-work at the back of such recesses, and such recesses shall be not more than ten feet in width, and shall be arched over or spanned with suitable lintels, and not carried up higher than eighteen inches below the bottom of the beams of the floor next above.

Radiator recesses under windows may be carried within four inches of outside wall.

CHASES FOR PIPES.

No chase for water or other pipes shall be made in any pier and no horizontal recess or chase in any wall shall be made exceding four feet in length without permission of the Building Inspector.

AGREGATE AREA FOR RECESSES.

The aggregate area of recesses in any wall shall not exceed one-fourth of the whole area of the face of the wall on any story, nor shall any such recess be made within a distance of six feet from any other recess in the same wall.

PIPE ENTRANCES AND DITCHES.

In no event shall any pipe trench enter any building except it be under an opening nor shall it parallel any wall or pier nearer than three feet, except by permission of the Building Inspector.

FURRED WALLS.

45. In all walls furred off more than 3 inches with wood the brick work between the ends of wood beams shall project the thickness of the furring beyond the inner face of the wall for the full depth of the beams.

BRICK AND HOLLOW TILE PARTITIONS.

46. Nine-inch brick, and six-inch hollow tile, and four-inch brick or four inch hollow tile partitions, of hard burnt clay or porus terra cotta laid up with cement mortar, may be built not exceeding in their vertical portions a measurement of fifty for the nine-inch and thirty-six for the six-inch and twenty-four feet for the four inch, respectively, and in their horizontal measurement a length not exceeding seventy-five feet, unless said partition walls are strengthened by proper cross-walls, piers or buttresses, or built in iron or steel frame work when the latter is imbedded in or insulated by the same material of which the partition is constructed.

All such partitions shall be carried on proper foundations, or iron or steel girders, or iron or steel girders or columns, properly insulated, or piers of masonary.

CELLAR PARTITIONS IN RESIDENCE BUILDINGS.

47. One line of fore and aft partitions in the cellar or lowest story, supporting stud partitions above, in all residence buildings over twenty-two feet between

bearing walls in the cellar or lowest story, hereafter erected, shall be constructed of brick, not less than nine inches thick, or piers of brick with openings arched over below the underside of the first tier of beams, or girders of iron or steel and iron columns or piers of masonary may be used; or if iron or steel floor beams spanning the distance between bearing walls are used of adequate strength to support the stud partitions above in addition to the floor load to be sustained by the said iron or steel beams, then the fore and aft brick partition, or its equivalent, may be omitted.

Stud partitions which may be placed in the cellar or lowest story of any building, shall have good solid stone, brick or cement foundation walls under the same, which shall be built up to the top of the floor beams or sleepers, and the sills of said partitions shall be heart pine.

MAIN STUD PARTITIONS.

48. In residence buildings where fore and aft partitions rest directly over each other, they shall run down between the wood floor beams and rest on the top plate of the partition below.

TIMBER IN WALLS PROHIBITED.

49. No timber shall be used in any wall of any building where stone, brick, cement, concrete or iron are commonly used, except inside lintels, as herein provided, and brace blocks not more than eight inches in length.

HALLWAY INCLOSURES AND STAIRCASES.

50. In all non-fire-proof apartment houses or tenement houses hereafter erected four stories and basement in height, but not exceeding fifty-five feet in height, and occupied or arranged to be occupied by more than two families on any floor, the staircase halls shall be inclosed with brick walls, and the said hall inclosures shall have a connecting hallway in the first story and extend to the street, inclosed with suitable walls of brick, or such other fire-proof materials, including ceiling, as may be approved by the Building Inspector.

In fire-proof apartment houses and tenement houses hereafter erected the stair halls and hall-ways leading to the street shall be inclosed with brick-walls and in other respects be constructed as required by this Code for fire proof construction.

Nine inch brick walls not exceeding fifty feet in their vertical measurement, may inclose said halls and stairs, and be used as bearing walls where the distance between the outside bearing walls does not exceed thirty-three feet, and the area between the said brick inclosed walls does not exceed one hundred and eighty superficial feet.

At least one flight of the hall stairs in each of said buildings shall extend to the roof, and there be inclosed in a bulkhead. The bulkhead door shall not at any time be locked with a key, but it may be fastened on the inside by movable bolts or hooks.

Whenever the walls inclosing the entrance hall of any apartment or tenement house hereafter erected support beams or girders carrying a brick wall above the said wall shall not be less than thirteen inches thick laid in cement mortar.

CLOSET UNDER FIRST STORY STAIRCASE.

No closet with a pitch less than five feet at any point shall be erected underneath the staircase of any story but this shall not prohibit the inclosing of the underportion of the first story staircase for coat closet or toilet room.

Under no circumstances shall a gas-meter be placed under any stairway.

ROOMS, LIGHTING AND VENTILATION OF.

In every apartment house or tenement house hereafter erected every room, except water closet compartments, bathrooms and storage rooms shall have at least one window opening directly upon the street or upon a yard or court.

CELLARS TO BE CONNECTED WITH SEWERS.

51. Before the walls of buildings are carried above the foundation walls the cellar shall be connected with the Street sewers.

Should there be no sewer in the street, or if the cellars are below sewer level, then provision shall be made by the owner to prevent water accumulating in the cellars to the injury of the foundations.

WOOD BEAMS.

52. All wood beams and other timbers in any wall of a building built of stone, brick, concrete, or iron, shall be separated from the beam or timber entering in the opposite side of the wall by at least four inches of solid mason work.

MINIMUM THICKNESS FOR WOOD BEAMS.

No wood floor beams used in any building, hereafter erected, except in a frame building, shall be of less thickness than two inches, nor less depth than ten inches except in spans of less than ten (10) feet.

No wood roof or ceiling beam shall be less than two inches thick or not less than six inches in depth.

TRIMMER AND HEADER BEAMS AND TAIL BEAMS.

All wood trimmer and header beams shall be proportioned to carry with safety the loads they are intended to sustain.

The ends of all tail beams shall be properly framed into the header beams, except where stirrup irons are used.

When it is not practicable to frame the ends of tail beams into header beams, the ends of the tail beams shall be hung to the header beams by stirrupirons of proper size and strength.

BEARINGS FOR WOOD BEAMS.

Every wood beam, except header beams, shall rest

at one end four inches in the wall, or upon a girder as authorized in this Code.

BEVEL ENDS FOR WOOD BEAMS.

The ends of all floor and ceiling beams where they rest on brick walls shall be cut to a bevel of two inches on their depth except in dwelling houses.

ENDS OF BEAMS NOT TO REST ON STUD PARTITIONS.

In no building of the warehouse class shall either end of a floor or ceiling beam be supported on a stud partition.

CROSS BRIDGING FOR BEAMS.

All wood floor beams shall be properly bridged with cross bridging, and the distance between bridging or between bridging and walls shall not exceed eight feet

BEAMS NEAR FLUES.

All wood beams shall be trimmed away from all smoke flues and chimneys. The trimmer beam shall be not less than one inch from the outside of a chimney breast, and the header beam not less than one inch from the outside face of the brick or stone work of the same.

The header beam, carrying the tail beam of a floor, and supporting the trimmer arch in front of a fire-place, shall be not less than twenty inches from the chimney breast.

GIRDER STRAPS AND ANCHORS.

Where the beams are supported by girders, the girders shall be anchored to the walls and fastened to each other.

BEAM STRAPS.

The ends of wood beams resting upon girders shall be securely fastened together, not less than ten feet apart, for the purpose of a continuous tie across the building.

WOOD COLUMNS AND PLATES.

53. Where posts are located over other posts they shall bear either directly on the post below or on suitable caps or bolsters of same.

TRIMMER ARCHES.

54. All fire-places and chimney preasts where mantels are placed, whether intended for ordinary fire-place uses or not, shall have trimmer arches to support hearths.

And the said arches shall be at least twenty inches in width, measured from the face of the chimney breast, and they shall be constructed of brick, stone, burnt clay or concrete and at no point shall these arches be less than six (6) inches thick measured from the face of the hearth.

The length of a trimmer arch shall be not less than

the width of the chimney breast.

If a heater is placed in a fire place then the hearth shall be the full width of the heater.

Fire places in which heaters are placed shall have incombustible material at least nine inches on each side of and sixteen (16) inches above heater.

No fire place shall be closed with a wood fire-board.

CHIMNEYS, FLUES AND FIRE PLACES.

55. All smoke flues shall be continuously lined on the inside with well burnt clay or terra cotta pipe with at least four (4) inches of brickwork around the lining, or all flues shall have at least nine (9) inches of brickwork if the flue linings are omitted. Flue linings shall start at least eighteen (18) inches below the ceiling.

Where flues are located against outside exposed faces of chimneys, the brickwork may be reduced on such faces to four inches instead of nine inches.

The fire-backs of all fire places shall be not less than nine (9) inches in thickness, of solid brickwork, nor less than thirteen (13) inches if of stone, except against exposed outside brick walls where it may be four (4) inches.

The brickwork of the smoke flues of all low pressure boilers, furnaces, baker's ovens, large cooking ranges, large laundry stoves, and all flues used for a similar purpose shall be at least nine inches in thickness, and lined continuously on the inside with well burnt clay or terra cotta pipe. This clause shall not apply to private dwellings.

The walls of all high pressure boiler flues shall be

not less than thirteen inches, and the inside four (4) inches of such walls shall be fire-brick, laid in fire mortar for a distance of ten (10) feet above and two (2) feet below the point of entrance to same.

All smoke flues of smelting furnaces or other apparatus which heat the flues to a high temperature, shall be built with double walls of suitable thickness for the temperature with an air space between the walls, the inside four inches of the flues to be of fire-brick, laid in fire-mortar for a distance of not less than fifteen (15) feet above and three (3) feet below the point of entrance to same.

All smoke flues shall extend at least three (3) feet above a flat roof and at least two (2) feet above the highest point of a peak roof.

CHIMNEY SUPPORTS.

56. No chimney shall be started or built upon any floor or beam of wood. In no case shall a chimney be corbeled out more than eight (8) inches from the wall, and in all such cases the corbeling shall consist of at least four (4) courses of brick.

Where chimneys are supported by piers, the piers shall start from the foundation on the same line with the chimney breast, and shall be not less than thirteen (13) inches on the face, properly bonded into the walls.

HOT AIR FLUES, PIPES AND VENT DUCTS.

57a. No stove pipe shall be placed nearer than nine inches to any lath and plaster or board partition, ceiling or any woodwork.

SMOKE PIPES INSIDE BUILDING.

Smoke pipes of laundry stoves, cooking ranges, and of furnaces shall be not less than fifteen (15) inches from any woodwork, unless they are properly guarded by metal shields; if so guarded, stove pipes shall be not less than nine (9) inches distant.

Where smoke pipes pass through a lath and plaster partition they shall be guarded by galvanized iron ventilated thimbles at least eight (8) inches larger in diameter than the pipes, or by galvanized iron thimbles built in at least nine (9) inches of brickwork.

SMOKE PIPES THROUGH ROOFS.

b. No smoke pipe shall pass through the roof of any building unless a special permit be first obtained from the Building Inspector for the same. If a permit is so granted, then the roof through which the smoke pipes pass shall be protected in the following manner:

A galvanized iron ventilated thimble of the following dimensions shall be placed; in case of a stove pipe, the diameter of the outside guard shall be not less than twelve inches, and the diameter of the inner one eight inches larger than the smoke pipe and for all furnaces or where similar large hot fires are used, the diameter of the outside guard shall be not less than eighteen inches and the diameter of the inner one twelve (12) inches larger in diameter than the pipe. The smoke pipe thimbles shall extend from the under side of the ceiling or roof beams to at least nine (9) inches above the roof, and they shall have openings for ventilation

at the lower end where the smoke pipes enter, also at the top of the guards above the roof.

Where the smoke pipes of a boiler passes through a roof, the same shall be guarded by a ventilated thimble, same as before specified, thirty-six (36) inches larger than the diameter of the smoke pipe of the boiler.

BAY, ORIEL AND SHOW WINDOWS.

58. Bay windows, oriel windows and show windows on the street front or side of any building shall not project beyond the building line without the permission of the City Council or the Committee on Streets, and shall be constructed of such materials and in such manner as will meet with the approval of the Building Inspector, and shall conform to the requirements of the resolution granting such permit.

STAIRS, NUMBER REGULATED BY AREA OF BUILDING.

59. If any building hereafter erected to be used as an office building, store, factory, hotel, lodging house or school, covering a lot area exceeding twenty-five hundred feet and not exceeding five thousand feet, there shall be provided at least two continuous lines of stairs remote from each other.

And every such building shall have at least one continuous line of stairs for each five thousand feet of lot area covered, or part thereof in excess of that required for five thousand feet of area.

When any such building covers an area of lot greater than fifteen thousand feet the number of stairs shall be increased proportionately or as will meet with the approval of the Building Inspector.

Each flight of stairs in every story which exceeds a height of eleven feet in the clear shall have a proper landing introduced, and said landing shall be placed at the central portion thereof if the stairs be a straight run.

The stairs shall be provided with proper bannisters or railings and hand-rails and kept in good repair.

METAL SKYLIGHTS.

60. The term "skylight" shall be taken to mean and include flat, hipped, lantern, monitor, turret, dome, vertical or pitched saw-tooth constructions, and all other covers placed over openings on roofs for the admission of light.

All skylights placed on or in any building, shall have the frames and sash thereof constructed of metal and glazed.

All openings in roofs for the admission of light other than elsewhere provided in this code over elevator, stair, dumb-waiter shafts, and theatre stage roofs, shall have metal frames and sash glazed with wire glass not less than one-quarter inch thick, or with glass protected above and below with wire screens, of not less than No. 12 galvanized wire, and not more than one inch mesh

SHED COVERINGS.

16. Whenever buildings shall be erected or increased

to over forty (40) feet in height, upon or along any street the owner or his authorized representative constructing or repairing such buildings, shall have erected and maintained during such construction or repair, a shed with tool house over the sidewalk in front of said premises, extending from building line to curb, the same to be properly, strongly and tightly constructed, so as to protect pedestrians and others using such streets.

GRAIN ELEVATORS AND COAL POCKETS.

62. Nothing in this code shall be construed as to apply to or prevent the erection of what are known as grain elevators, as usually constructed, provided they are erected in isolated localities and under such conditions as the Building Inspector may prescribe, including location, nor to apply to or prevent the erection of coal pockets or coal elevators as usually constructed under similar conditions, including location.

EXHIBITION BUILDINGS.

63. Buildings for fair and exhibition purposes, towers for observation purposes and structures for similar uses, whether temporary or permanent in character, shall be constructed in such manner and under such conditions as the Building Inspector may prescribe.

SMOKE HOUSES.

64. All smoke houses shall be of fire-proof construc-

tion, with brick walls, iron doors and brick or metal roof.

An iron guard hall be placed over and not less than three (3) feet above the fire, and hanging rails shall be of iron, and an iron grating shall be placed under the first row of hanging rails, and be not less than eight (8) feet above the floor of the fire pit.

The walls of all smoke houses shall be built at least three (3) feet higher than the roof of the building in which they are located and shall be not less than thirteen (13) inches in thickness and be coped with stone or its equivalent.

HEATING BOILERS AND FURNACES.

65. A brick set boiler shall not be placed on any wood or combustible floor or beams.

No combustible partition shall be within four feet of the sides and back and six feet from the front of any boiler, unless said partition shall be covered with metal to the height of at least three feet above the floor, and shall extend from end or back of the boiler to at least five feet in front of it, then the distance shall be not less than two feet from the sides and five feet from the front of the boiler.

All hot air furnaces shall be placed at least three feet from any wood or combustible partition or ceiling, unless the partitions and ceilings are properly protected by a suspended metal shield, when the distance shall be not less than one foot.

REGISTERS.

66. Where a register is placed on any wood-work in

connection with a metal pipe or duct, the end of the said pipe or duct shall be flanged over on the woodwork under it.

All register boxes shall be made of tin plate or galvanized iron with a flange on the top to fit the groove in the frame, the register to rest upon the same; there shall be an open space of two inches on all sides of the register box, extending from the under side of the border to and through the ceiling below. The said opening shall be fitted with a tight tin or galvanized iron casing, the upper end of which shall be turned under the frame.

RANGES AND STOVES.

67. Where a kitchen range or stove is placed within twelve inches from a wood stud partition or furred wall the said partition or furred wall shall be shielded with metal from the floor to the height of not less than three feet higher than the range or stove.

All lath and plaster or wood ceilings over all ranges in hotels and restaurants, shall be guarded by metal hoods placed at least nine inches below the ceiling and properly ventilated.

MANSARD ROOFS.

68. If a mansard or other roof of like character, having a pitch of over sixty degrees, be placed on any building, except a wood building, or a dwelling house not exceeding three stories in height, it shall be constructed of iron rafters and lathed with iron or steel on the

inside and plastered, or filled in with fireproof material not less than three inches thick, and covered with metal. slate or tile.

BULKHEADS ON ROOFS AND SCUTTLES.

69. Bulkheads used as inclosures for tanks and elevators, and coverings for the machinery of elevators and all other bulkheads on buildings hereafter erected or altered shall be constructed of fireproof materials or of wood covered on all outside surfaces with metal, including both surfaces and edges of doors. On fireproof buildings and bulkheads and inclosures on roofs shall be constructed of fireproof materials only.

No staging or stand shall be constructed or occupied upon the roof of any building without first obtaining the approval of the Building Inspector.

ROOFING AND LEADERS WITHIN THE FIRE LIMITS.

70. Every building shall be covered and roofed with brick, tile, slate, tin, copper or iron, or such other incombustible roofing as the Building Inspector under his certificate, may authorize.

Nothing in this section shall be construed to prohibit the repairing of any shingle roof within or without the fire-limits, provided the building is not altered in height, but this shall not be construed to permit the renewal of a shingle roof.

ELEVATOR SHAFTS.

71. All elevator shafts below the level of the main floor

shall be inclosed with fire-proof material with fire-proof doors. When the enclosure of an elevator has an opening to accommodate machinery for operating same, such as shafts, pulleys, drums, cables, etc., said machinery shall be inclosed in a similar manner to the shaft.

DUMB-WAITERS.

72. A dumb-waiter shall be considered a special form of elevator whose dimensions shall not exceed three feet square and which is designed for the carrying of light articles, and is provided with one or more shelves.

Regulations as to elevators shall not apply to dumbwaiters.

ELEVATORS IN EXISTING OR PROPOSED HOTELS.

73. In every building to be used or occupied as a hotel the elevator or elevators shall be inclosed in fire-proof shafts and the openings in such shafts shall be inclosed with fire-proof doors.

SCREEN UNDER ELEVATOR SHEAVES.

74. Immediately under the sheaves at the top of every elevator shaft in any building there shall be provided and placed a substantial grating or screen of iron or steel or a fire-proof floor of such construction as shall be approved by the Building Inspector.

FIRE ESCAPES.

WHAT BUILDINGS SHALL RE PROVIDED WITH FIRE ESCAPE FACILITIES.

75a. Every building already erected, or that may hereafter be erected more than two stories in height. occupied and used as a hotel, apartment hotel or lodging house, and every boarding house having more than twenty sleeping rooms above the second story: every factory, mill, manufactory or workshop, hospital. asvlum or institution for the care or treatment of individuals over two stories in height: every building two stories and over in height used or occupied as a store, show or workroom; every building in whole or in part occupied or used as a school, or place of instruction or assembly over one story in height: every office building three stories or more in height shall be provided with such good and sufficient fire-escapes stair ways, or other means of egressin case of fire as shall be directed by the Building Inspector

The owner or owners of any building upon which a fire-escape is erected shall keep the same in good repair and properly painted.

Fire-escapes on the outside of buildings shall consist of open iron balconies and stairways. In the event that inside fire-escapes are used they shall be constructed entirely of approved fire-proof material and all inclosing walls to be of brick or fire-proof material and in accordance with plans as approved by the Building Inspector.

Fire-escapes may project into the public highway

to a distance not greater than four feet beyond the building line.

The stairway shall be placed at an angle of not more than sixty degrees, with steps not less than six inches in width and twenty-two inches in length, and with a rise of not more than nine inches.

The balcony on the top floor, except in a case of a front fire-escape shall be provided with a goose-neck ladder leading from said balcony to and above the roof if in the opinion of the Building Inspector this is necessary.

BALCONIES.

b. The balconies shall be not less than three feet in width, and placed where directed by the Building Inspector at each story above the ground floor.

They shall be as near level as possible to the window sills and extend in front of and not less than nine inches beyond each window.

There shall be a landing not less than twenty-four inches square at the head and foot of each stairway.

The stairway opening on each platform shall be of a size sufficient to provide clear headway.

FLOORS OF BALCONIES.

e. The floors of balconies shall be of wrought iron or steel slats not less than one and one-half inches by three-eighths of an inch, placed not more than one and one-quarter inches apart, and well secured and riveted to iron angles not less than 1½ inches by 1½ inches by t inch thick. The openings for stairways in all balconies shall be not less than twenty-one inches wide and forty-eight inches long, and such openings shall have no covers of any kind.

RAILINGS.

d. The outside top rail shall extend around the entire length of the platform and be secured by malleable iron expansion bolts to the wall. The top rail of balconies shall be one and three-quarter inches by onehalf inch of wrought iron, or one and a half inch angle iron, one quarter inch thick. The bottom rails shall be one and a half inches by three-eighths of an inch wrought iron or steel, or one and a half inch angle iron. one-quarter inch thick fastened to the wall by expansion bolts. The standards of filling-in bars shall be not less than one-half inch round or square wrought iron or steel, well riveted to the top and bottom rails and platform frame. Such standards or filling-in bars shall be securely braced by outside brackets at suitable intervals, and shall be placed not more than six inches from centers: the height of railings shall in no case be less than three feet.

No cast iron shall be used in any part in the construction of fire-escapes.

STAIRWAYS.

e. The treads shall be flat open treads not less than six inches wide and with a rise of not more than nine inches. The stairs shall be not less than twenty-two inches wide.

The strings shall be not less than four inches channels of iron or steel, or other shape equally strong, and shall rest upon and be fastened to the balconies at top and bottom. The steps in all cases shall be double riveted or bolted to the strings. The stairs shall have three-quarter inch hand rails of wrought iron pipe well braced.

BRACKETS.

f. The top piece of the bracket shall be not less than 2" X 2" X \frac{1}" thick iron angles with not less than 1" round iron well riveted together, and extending entirely through the wall and secured on the inner-side of the wall by nuts and 8" square washers not less than \frac{1}{2}" thick.

The wall brace of the bracket shall be $2\frac{1}{2}$ " X $\frac{3}{4}$ " not less than 20" long, and turned into the wall at the bottom not less than 3".

The angle brace shall be not less than $1\frac{1}{2}$ " $X1\frac{1}{2}$ " $X\frac{1}{2}$ " iron angle, all members of the bracket being securely riveted together, and the bracket shall extend the width of the balcony.

On new buildings the brackets shall be set as the walls are being built.

ALTERNATE CONSTRUCTION.

g. Other construction of fire-escapes balcony floors, railings, stairways and brackets of strength and rigidity equal to that above specified will be allowed in place thereof.

DROP LADDERS.

A proper drop-ladder shall be required from the lower balcony when the floor of such balcony is more than twelve feet above the side-walk or ground.

PAINTING.

All the parts of such fire-escapes shall receive not less than two coats of paint, one in the shop and one after erection.

SCUTTLE LADDERS.

All buildings requiring fire-escapes shall have stationary ladders leading to the scuttle opening in the roof thereof, and all scuttles and ladders shall be kept so as to be ready for use at all times.

BULKHEAD STAIRS AND DOORS.

If a bulkhead is used in place of a scuttle, it shall have stairs with a sufficient guard or hand-rail leading to the roof.

In case the building shall be occupied by more than one family the door in the bulkhead or any scuttle, shall at no time be locked but may be fastened on the inside by movable bolts or hooks.

FIRE-PROOF BUILDINGS.

76. Whenever it is desired to build, alter or repair buildings of so-called fire-proof construction, all plans

shall be submitted in detail for the information of the ing Inspector and in the event that the Building Inspector shall require special or expert advice in this line of construction, such advice shall be furnished by the owner and at the expense of the said owner.

COMPUTATIONS FOR STRENGTH OF MATERIALS.

77. The dimensions or each piece of combination of materials required shall be ascertained by computation, according to the rules prescribed by this Code.

FACTORS OF SAFETY.

78. Where the unit stress for any material is not prescribed in this Code the relation of allowable unit stress to ultimate strength shall be—

As one to four for metals, subjected to tension or transverse stress:

As one to six for timber:

And as one to ten for natural or artificial stones and brick or stone masonary.

But wherever working stresses are prescribed in this Code, varying the factors of safety herein above given, the said working stress shall be used.

Strength of columns.

79. In columns or compression members with flat ends of cast iron, steel, wrought iron or wood the stress $p \in \mathbf{r}$ equare inch shall not exceed that given in the following tables.

When the Length Divided by Least Working stresses per Sq. In. of Sec.

per Sq. In. of Sec.			
Radius of gyration e	qls. Cast iron. S	Steel. Wrt.	iron.
120	•	8,240	4,400
110		8,820	5,200
100		9,400	6,000
90		9.980	6,800
. 80		10,560	7,600
70	9,200	11,104	8,400
6C	9,500	11,720	9,200
5 6	9,800	12,300	10,000
40	10,100	12,880	10,800
30	10,400	13,460	11,600
20	10,700	14,040	12,400
10	11.000	14.620	13.200

And in like proportion for intermediate ratios.

When the length	Working s	tress per square of section.	inch
divided by the least diameter equals.	Long Leaf Yellow pine	White pine Norway pine Spruce	Oak
30	460	350	390
25	550	425	475
20	640	500	560
15	730	575	645
12	784	620	696
10	820	650	730

And in like proportions for intermediate ratios. Fiveeighths the values given for white pine shall also apply to chestnut and hemlock posts.

For locust posts use one and one-half the value given for white pine.

Columns and compression members shall not be used having an unsupported length of greater ratios than given in the table.

WORKING STRESSES.

80. The safe carrying capacity of the various materials of construction (except in the case of columns) shall ee determined by the following working stresses in pounds per square inch of sectional area:

COMPRESSION (DIRECT).

Rolled Steel		16,000 16,000 12,000 16,000 20,000 15,000
w	ith grain.	Across grain
Oak	900	800
Yellow Pine	1,000	600
White Pine	800	400
Spruce	800	. 400
Locust		

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Hemlock 500	500
Chestnut 500	1,000
Concrete (Portland) cement 1; sand	
2; stone 4;	230
Concrete (Portland) cement 1; sand	
2; stone 5;	208
Concrete Rosendale, or equal ce-	
ment 1; sand 2; stone 4;	125
Concrete Rosendale, or equal, ce-	
ment 1; sand 2; stone 5;	111
Rubble stonework in Portland Ce-	
ment mortar;	140
Rubble stonework in Rosendale Ce-	140
	111
ment mortar	111
Rubble stonework in lime and ce-	07
ment mortar;	97
Rubble stonework in lime mortar	70
Brickwork in Portland Cement mor-	
tar; cement 1; sand 3;	250
Brickwork in Rosendale or equal	
cement mortar, cement 1; sand 3;	208
Brickwork in lime and cement mor-	
tar; cement 1; lime 1; sand 6;	160
Brickwork in lime mortar lime 1;	
sand 4;	111
Granites (according to test)	1,000 to 2,400
Gneiss stone	1,200
Limestones (according to test)	700 to 2,300
Marbles (according to test)	600 to 1,200
Sandstones (according to test)	400 to 1,600
Bluestone	2,000
Brick (hard-burned, flatwise)	300
	1,000
Slate	2,000

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Tension (direct).	
Rolled Steel	16,000
Cast Steel	16,000
Wrought Iron	12,000
Cast Iron	3,000
Yellow Pine	1,200
White Pine	800
Spruce	800
Oak	1,000
Hemlock	600
SHEAR.	
Steel Web Plates	9,000
Steel Shop rivets and pins	10,000
Steel Field Rivets	8,000
Steel Field Bolts	• 7,000
Wrought Iron Web Plates	6,000
Wrought Iron Shop Rivets and Pins	7,500
Wrought Iron Field Rivets	6,000
Wrought Iron Field Bolts	5,500
Cast Iron	3,000
With Fibre.	Across Fibre.
Yellow Pine	500
White Pine 40	250
Spruce 50	320
Oak	600
Locust	720
Hemlock 40	275
Chestnut	150

SAFE EXTREME FIBRE STRESS (BENDING).

Rolled steel beams	16,000
Rolled steel pins, rivets and bolts	20,000
Riveted steel beams (net flange	20,000
section)	14,000
_	12,000
Rolled wrought iron beams	12,000
Rolled wrought iron pins, rivets and	15 000
bolts ,	15,000
Riveted wrought iron beams (net	10.000
flanged section)	12,000
Cast iron compression side	16,000
Cast iron tension side	3,000
Yellow Pine	1,200
White Pine	800
Spruce	800
Oak	1,000
Locust	1,200
Hemlock	600
Chestnut	800
Granite	180
Gneiss Stone	150
Limestone	150
Slate	400
Marble	120
Sandstone	100
Bluestone	300
	300
Concrete (Portland) cement 1; sand	20
2; stone 4	30
Concrete (Portland) cement 1; sand	
2 stone 5;	20
Concrete (Rosendale or equal) ce-	_
ment 1; sand 2; stone 4; \dots	16

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Concrete (Rosendale or equal) ce-	
ment 1; sand 2; stone 5	10
Brick (Hard-burned)	50
Brickwork (in cement)	30

Public Buildings.

81. In all public buildings or buildings of a public character—such as hotels, churches, theatres, railroad depots, public halls, and other buildings used or intended to be used for purposes of public assembly, amusement or instruction and business and manufacturing buildings where large numbers of people are congregated, the public halls, doors, stairways, seats, passageways and aisles, and all lighting and heating appliances and apparatus shall be arranged to facilitate egress in cases of fire or accident and to afford the requisite and proper accommodation for the public protection in such cases.

The Building Inspector may at any time serve a written or printed notice upon the owner, lessee or manager of any of said buildings, directing any act or thing to be done or provided in or about the said buildings and the several appliances therewith connected, such as halls, doors, stairs, windows, seats, aisles, fire-walls, fire-apparatus and fire-escapes, as he may deem necessary. This provision shall also apply to flats or apartment houses when coupied by more than two families.

THEATRES AND PLACES OF PUBLIC AMUSEMENT APPROVAL OF BUILDING INSPECTOR AND CHIEF OF FIRE DEPARTMENT REQUIRED BEFORE OPENING.

82a. No building shall be opened to the public for theatrical or operatic purposes or for public entertainments of any kind until the Building Inspector shall have approved the same in writing nor until the Chief of the Fre Department shall have certified in writing that all the appliances for the extinguishing of fire or guarding against the same are in a complete and satisfactory working condition.

STORAGE ROOMS.

b. No storage room for scenery shall be allowed under auditorium or public lobbies but may be placed under stage or elsewhere when properly separated from stage and auditorium by fire-proof material approved by Building Inspector as to material and location.

WALLS TO BE OF FIRE-PROOF MATERIALS.

e. Interior walls built of fire-proof materials shall separate the auditorium from the entrance vestibule, and from any room or room over the same, also from any lobbies, earli lors, refreshment or other rooms; and in all such wells the window and door frames and all sash shall be fire-proof; the window-frames and sash shall be of metal of standard construction, and the sash made stationary and glazed with wire glass not less than one-cuerter inches in thickness and each pane or unit measuring not more than twenty-four by thirty inches

STAIRCASES.

d. All staircases for the use of the audience shall be inclosed with walls of brick, or of fire-proof materials approved by the Building Inspector, in the stories through which they pass, and the openings to said staircases from each tier shall be the full width of the staircase. No door shall open immediately upon a flight of stairs, but a landing at least the width of the door shall be provided between such stairs and such door.

AUDITORIUM, PROSCENIUM OPENING AND CURTAIN.

e. A fire-wall built of brick, not less than thirteen inches in any portion of the same shall separate the auditorium from the stage and the same shall extend at least two feet above the stage roof, or the auditorium roof, if the latter be the higher.

Above the proscenium opening there shall be an iron girder of sufficient strength to safely support the load above and the same shall be covered with fire-proof material not less than four inches in thickness.

The molded frame around the proscenium opening shall be formed entirely of fire-proof materials; if metal be used, the metal should be filled in solid with non-combustible material and securely anchored to the wall with iron.

The proscenium opening shall be provided with fire-proof metal curtain, or a curtain of asbestos, or other fire-proof material approved by the Building Inspector, overlapping the brick proscenium wall at each side not less than twelve inches, and sliding

vertically at each side within iron grooves or channels to a depth of not less than twelve inches, said grooves or channels to be securely bolted to the brick wall and extend to a height of not less than three feet above the top of the curtain when raised to its full height. Said curtain to be suspended or hung by steel cables passing over wrought iron or steel sheaves supported by wrought iron brackets of such sufficient strength and well braced; the brackets to be securely attached to the proscenium wall by through bolts with nuts and washers on the opposite side of the wall.

If the proscenium curtain be of asbestos, that material shall be reinforced with wire or wire spun in the asbestos, and at the bottom of the curtain shall be placed a rigid metallic rod or bar of proper weight, securely fastened to the curtain and covered over with like material as the curtain itself, to carry down the curtain by the weight of the said rod or bar when released. The excess weight of the curtain is to be overcome by a check-rope of cotton or hemp, extending to the floor on both sides of the stage, so that the cutting or burning of which will release the curtain and the same will then descend at its normal rate of speed. The proscenium curtain shall be placed at the nearest point at least three feet distant from the footlights.

No doorway or opening through the proscenium wall, from the auditorium shall be allowed above the level of the first floor, and such first floor openings shall have self closing standard fire-doors at each side of the wall, and openings, if any, below the stage shall each have a self-closing standard fire-door, and all of the said doors shall be hung so as to be opened from either side of the wall at all times

SKYLIGHT

- f. The skylight shall be so constructed as to open instantly on the cutting or burning of a hempen cord, which shall be arranged to hold said skylight closed, or some other equally simple approved automatic device for opening them may be provided. Immediately underneath the glass of said skylight there shall be wire netting, but wire glass shall not be used in lieu of this requirement.
- g. The ceiling of the auditorium shall be formed of fire-proof materials, plaster on metal laths or of sheet metal.

AUDITORIUM WALLS, SEATS, DOORS, ETC.

None of the walls or ceilings shall be covered with wood sheathing, wood wainscotting, canvas, or other combustible material.

All seats in the auditorium shall be firmly secured to the floor.

Doorways of exit or entrance for the use of the public shall be not less than five feet in width, not including the fire exit doorways.

All doors of exit or entrance shall open outwardly and be hung to swing in such a manner as not to become an obstruction in a passage or corrider.

Distinct and separate places of exit and entrance shall be provided for each gallery.

No passage leading to any stairway communicating with any entrance or exit, not including fire exits, shall be less than four feet in width in any part thereof.

Stairs from balconies and galleries shall not communicate with the basement or cellar nor shall any stairway have a closet or inclosed space under it.

In no case shall the risers of any public stairs exceed seven and an half inches in height, nor shall the treads exclusive of nosings, be less than ten and one-half inches wide in straight stairs.

No circular or winding stairs for the use of the public shall be permitted.

At least two independent and direct exterior outlets shall be provided for the service of the stage and shall be located on the opposite sides of the same.

All inclosed staircases shall have, on both sides, strong hand-rails firmly secured to the wall about three inches distant therefrom and about three feet above the stairs, but said hand-rails shall not run on level platforms and landings where the same are of greater length than the width of the stairs.

BOILERS AND HEATING ARRANGEMENTS.

h. Every steam boiler which may be required for heating shall be inclosed by walls of masonary on all sides and the ceiling of such space shall be constructed of fire-proof materials and shall not be located under the main auditorium.

All doorways in Boiler Room walls connecting with the luilding shall have standard automatic sliding fire-doors.

Stand pipes of not less than four inches in diameter shall be provided with hose connections, one on each side of the stage and one on each side of the fly galleries. All of such standpipes and hose connections shall be kept clear of obstructions.

Pipes shall be fitted with approved straightway composition gate valves at hose outlets, and the thread of all connections shall be uniform with that in use by the Fire Department.

One spanner to be located at each hose connection.

GAS AND ELECTRIC LIGHTS.

i. There shall be one light within a red globe or lantern placed over each exit opening, on the auditorium side of the wall.

Gas mains and electric light wires supplying the building shall have three independent connections as follows: one for the stage, one for the auditorium, excepting the exit lights therein, and the third for the halls, corridors, lobbies, exit lights, including the exit lights in the auditorium, and such other portions of the building used by the audience outside of the auditorium proper.

All gas and electric lights in the halls, corridors, lobbies and other portions of the building used by the audience, with the exception of the audit rium proper, but including the exit lights therein, shall be controlled by separate switches or valves, one to le located in the lobby and the other to be located in he rear part of the building.

LIGHT GUARDS.

j. No gas or electric light shall be recessed in the walls, woodwork, ceilings or in any part of the building unless protected by fire-proof materials.

All lights in passages and corridors in said buildings. and wherever else deemed necessary by the building Inspector, shall be guarded with proper wire net-work,

The footlights when not electric, in addition to the wire net-work, shall be guarded with strong wire guard and chain drawn taut placed not less than two feet distant from said footlights and the trough containing said footlights shall be formed of and surrounded by fire-proof materials.

All ducts or shafts used for conducting heated air from the main chandelier, or from any other light or lights, shall be constructed of metal.

All stage lights shall have strong metal wire guards or screens not less than eight inches in diameter, so constructed that any material in contact therewith shall be out of reach of the flames of said stage lights, and such guards or fixtures shall in all cases be fastened to the fixture.

The bridge calcium lights at sides of proscenium shall be inclosed in front and on the side by galvanized iron so that no drop can come in contact with the lights. Electric calcium so-called are included in the above requirements.

Exits.

k. Every exit shall have over the same on the inside, the word "EXIT" painted in legible letters not less than_eight inches high.

FRAME BUILDINGS ALTERED OR REMOVE

83. Within the fire limits no frame building more than

two stories in height, now used as a dwelling, shall hereafter be altered to be used as a factory, warehouse or stable.

No wood building within or without the fire limits shall be moved from one lot to another until a statement setting forth the purpose of said removal and the uses to which said building is to be applied is filed in the office of the Building Inspector and a permit be first obtained therefor. No wood building shall be moved from without to within the fire-limits.

FIRE LIMITS.

84. No frame or wood structure shall be built hereafter in the City of Richmond, within the fire limits, as the "aid limits now are or from time to time may hereafter be established, except as provided for in this Code, and also excepting grain elevators, coal elevators and pockets, ice houses and exhibition buildings, as provided for in this Code.

The fire limits of the City of Richmond shall include all that territory within the following boundaries, viz:

Beginning at a point on the northern shore of James River where the center line of Belvidere Street intersects the said River shore; thence northwardly along the said center line of Belvidere Street to a point opposite the center of an alley south of Cary Street; thence westwardly along the said Alley or its continuation to the west line of Carter Street, thence northwardly along the west line of Carter Street to Cary Street; thence across Cary Street to the west line of Walnut

Street; thence northwardly along the west line of Walnut Street to an Allev south of Main Street: thence westwardly along the said Alley or its continuation to the corporation line; thence northwardly along the western limits of the City to the North side of the Broad Street Road: thence eastwardly along the north-side of Broad Street (being a part of the northern portion of the City limits) to the eastern line of the Old Fair Grounds: thence northwardly along the eastern line of the Old Fair Grounds to the northern line of Leigh Street; thence eastwardly along the north line of Leigh Street to a point opposite the center of Henry Street; thence northwardly along a line which would be a projection of the center line of Henry Street to the north line of Duval Street: thence eastwardly along the north line of Duval Street to a point 150 feet west of first Street: thence northwardly along a line 150 feet west of and parallel to First Street to the north line of Charity Street; thence eastwardly along the north line of Charity Street to the west line of Second Street: thence northwardly along the west line of Second Street to the north line of Bates Street; thence eastwardly along the north line of Bates Street to the east line of Fourth Street: thence southwardly along the east line of Fourth Street to the north line of Baker Street: thence eastwardly along the north line of Baker Street to a point 150 feet east of Sixth Street; thence southwardly along a line 150 feet east of and parallel to Sixth Street to the center line of Duval Street if extended, and eastwardly along the center line of Duval Street if extended to the east line of Ninth Street, thence south-

wardly along the east line of Ninth Street to the center line of Turpin Street, thence eastwardly along the Center line of Turpin Street to a point 150 feet east of Tenth Street: thence southwardly along a line 150 feet east of . and parallel to Tenth Street to a point 150 feet north of Clay Street: thence eastwardly along a line 150 feet north of and parallel to Clay Street to a point 150 feet east of Twelfth Street: thence southwardly along a line 150 feet east of and parallel to Twelfth Street to a point 150 feet north of Marshall Street: thence eastwardly along a line 150 feet north of and parallel to Marshall Street to a point 150 feet west of Seventeenth Street: thence northwardly along a line 150 feet west of and parallel to Seventeenth Street to the north line of William Street: thence eastwardly along the north line of William Street to a point 150 feet east of Seventeenth Street: thence southwardly along a line 150 feet east of and parallel to Seventeenth Street to a point 150 feet north of Marshall Street; thence eastwardly along a line 150 feet north of and parallel to Marshall Street a point 150 feet east of Thirty-fourth Street; thence southwardly along a line 150 feet east of and parallel to Thirty-fourth Street to a point on the south side sof Broad Street; thence westwardly along the south side of Broad Street to the west line of Thirty-second Ttreet; thence southwardly along the west line of hirty-second Street to the south line of Grace Street; thence westwardly along the south line of Grace Street to the east line of Thirtieth Street; thence southwardly along the east line of Thirtieth Street to the south side of Main Street; thence eastwardly along the south side of Main Street to the east si de

of Elm Street; thence southwardly along the east side of Elm Street to the northern shore of James River; thence westwardly along the northern shore of James River to the point of beginning.

EXCEPTIONS AS TO BUILDINGS IN FIRE LIMITS.

It is provided that dwellings may be built of frame or wood within these fire-limits in the following districts:

FIRST. In the district bounded on the west by
Twenty-third Street and on the North,
South and East by the fire limits
stated in this ordinance.

SECOND. In the district west of Lombardy
Street, bounded on the North,
South and West by the fire-limits
named in this ordinance.

Provided all such frame dwellings built in the districts just described shall be located so as to leave a clear space of five (5) feet between such dwelling and the side lot lines except on corners, in which event the clear space next to the Street will be exempt from this provision.

This special provision shall not be construed to permit of the erection of double tenements or blocks of frame dwellings, nor shall any frame dwelling be erected within less than ten (10) feet of any frame structure now existing in the territories described in this paragraph.

FRAME STRUCTURES WITHIN THE FIRE LIMITS.

85a. The provisions in this section contained, shall apply to buildings and structures, whether temporary or permanent, within the fire-limits, as the said fire-limits now are or from time to time may hereafter be established.

TEMPORARY FRAME BUILDINGS.

Temporary one-story frame buildings may be erected for the uses of buildings, within the limits of lots whereon buildings are in course of erection, or on an adjoining vacant lot, upon permits issued by the Building Inspector.

Temporary structures shall be taken to mean and include platforms, stands, election booths and circus tents.

SHEDS.

Sheds of wood not over fifteen (15) feet high, open on at least one side, with the sides and roof thereof covered with fire-proof material may also be built, but such sheds shall not cover an area exceeding 1,000 square feet, except by permission of the Building Inspector in isolated localities and under such conditions as the said Building Inspector may prescribe.

OUTHOUSES

Exterior privies, and wood or coal houses, not

exceeding one hundred square feet in superficial area and eight feet high, may be built of wood, but the roofs thereof shall be covered with metal, gravel or slate.

FENCES.

b. Fences of wood shall not be erected over ten feet high, above the surface of the ground, and shall be properly supported and braced.

STONS.

c. Signs of wood shall not be erected over two feet high on any building, and no sign of wood shall be placed above the front wall or cornice or roof of any building.

Sky signs, or any device in the nature of an advertisement, announcement or direction constructed of sheet metal or wire fastened to wood frames supported upon or above or attached to any building, shall be deemed to be wood signs.

If such sky signs shall exceed two feet in height they shall be constructed entirely of metal, including the uprights, supports and braces for same, and shall be not more than nine feet in height above the front wall or cornice or roof of the building or structure to which they are attached or by which they are supported.

Before any wood or metal sign shall be placed in position upon, above or attached to the outside of any building, a permit shall first be obtained from the Building Inspector.

Such signs shall be so constructed, placed and supported as not to be or become dangerous.

All signs which shall be dangerous in any manner whatever, shall be repaired and made safe or taken down by the owner, lessee or occupant of the building.

BILL BOARDS.

No signs or bill boards of wood or metal erected upon uprights or other supports extending into the ground shall be at any point more than ten feet above the surface of the ground, and the same shall be properly supported and braced.

FRAME BUILDINGS DAMAGED.

86. Every wood or frame building with a brick or other front within the fire-limits, which may hereafter be damaged to an amount not greater than one-half the actual value thereof, exclusive of the valuation of the foundation thereof at the time of such damage, may be repaired or rebuilt.

But if such damage shall amount to more than onehalf of such actual value thereof, exclusive of the value of the foundation, then such building shall not be repaired or rebuilt, but shall be taken down, except as provided in this Code.

FRAME BUILDINGS OUTSIDE OF FIRE LIMITS.

87a. The provisions of this section shall apply to frame or other buildings hereafter erected outside of the

fire-limits, as the same are now or may hereafter be established in portions of the City of Richmond, where streets are now and where they may hereafter be legally established.

HEIGHT.

b. Two-story frame buildings may be erected to a height not exceeding thirty feet, said height being taken from the curb line, where same exists, at the center of front or side of building on which main entrance to upper floor is located.

Where the walls of a building do not adjoin the Street or building line then the average level of the ground on which the building stands may be taken

in place of the curb line.

The measurement for height shall be to the highest point of roof beams in case of flat roof buildings, and to the average height of gable or roof in case of pitched roofs.

Towers, turrets, and minarets of wood may be erected to a height not to exceed ten feet greater than the foregoing limited height.

AREA.

c. No frame building hereafter erected or any occupancy other than grain elevators, coal elevators and pockets, ice houses, and exhibition buildings and being not over thirty feet in height, shall cover a ground area exceeding the following: One story building seventy-five hundred square feet, two-story building five thousand square feet, which may be increased in special cases by permission of the Building Inspector.

FOUNDATIONS.

d. Foundations for frame structures shall be laid not less than eighteen inches below the finished surface of the earth, or upon the surface where there is rock bottom, or upon piles or ranging timbers where found necessary.

The foundation wall of frame structures exceeding fifteen feet in height—

If of stone, shall be not less than twelve inches thick. And if of brick, or concrete not less than nine inches

to the underside of the sill with a proper heel course.

If the foundation and first-story walls are constructed of brick or concrete the foundation walls shall be not less than thirteen inches thick to the first tier of beams and nine inches thick from first tier to second tier of beams.

Or if these walls are constructed of stone they shall be not less than eighteen inches for the foundation wall and thirteen inches for the first-story wall;

CHIMNEYS AND FLUES.

e. All chimneys in frame buildings shall be built of brick or other fire-proof material as required by section 55 of this code.

In all chimneys the backs shall have at least 8 inches of brickwork between fire-backs or any woodwork.

WALLS.

f. When two or more frame buildings are built continuous the party or division studding shall be not less than four inches thick and filled in solidly with brickwork or other fire-proof material extending to the underside of roof boards.

When the division walls are of brick they shall be not less than nine inches thick above the foundation wall and extending to underside of roof boards, and the ends of the floor beams snall be so staggered or separated that not less than four inches of brickwork will be between the beams where they rest on said walls.

FRAME CONSTRUCTION.

g. All frame or wood buildings exceeding a height of fifteen feet shall be built with sills, posts, girts, plates and rafters, all of suitable size and properly framed and braced with suitable studs or planks, set at proper distance apart.

The floor beams and rafters shall be not less than two inches in thickness.

The covering of roofs with wooden shingles is hereby prohibited.

The walls of light, vent and dumb-waiters shafts, whether exterior or interior, in frame buildings may be constructed of frame.

Nothing in this section shall be construed to prohibit the repairing of any shingle roof, provided the building is not altered in height, but this shall not be construed to permit the renewal of a shingle roof. Posts of wood and wood girders may be used instead of brick fore-and-aft partitions in ceilings of frame buildings.

ALTERATIONS OR ENLARGMENT.

h. Frame buildings may be altered, extended, raised or repaired, provided the new portions comply with the provisions of this section.

VENEERED BUILDINGS.

i. Frame buildings veneered on the outside with four inches of brick or stone work shall be deemed frame buildings but such brick or stone work shall be supported on a continuous foundation of masonary, and shall be properly anchored to the frame structure. The height of any such veneered building shall not exceed two stories and attic above the basement.

BRICK BUILDINGS OUTSIDE OF FIRE LIMITS.

88. Outside of the fire-limits, when any brick, stone or concrete building is to be erected of a class that could, under this code, be constructed of wood, the Building Inspector is hereby authorized and directed to allow reasonable modifications of this code relating to brick buildings, in consideration of incombustible material being used for walls instead of wood.

GENERAL RULES CONCERNING RETAIL STORES.

89 a. In all buildings having more than five thousand feet of area on their main floor and occupied for the retail sale of merchandise, in such cases the doors to the main entrance or entrances shall be made to open outwardly and no obstruction or show-caes, whether movable or immovable, shall be permitted between said doors and the property line.

This section shall not prevent the use of show-cases in entrance-ways when such entrances are so arranged as to maintain a passageway on all sides of such show-case equal in width to the door-way or door-ways into such entrances.

In such stores there shall also be an additional entrance at least four (4) feet wide opening on an alleyway or side street readily accessible to the public for use as an emergency exit. This door shall open outwardly and be kept unlocked during the usual hours of business.

When the basement of such stores are used for the sale of merchandise and exceed three thousand square feet of area there shall be at least two stairways located as near as practicable at opposite ends of the building and contiguous to public exits or at least one exit leading directly to a street or an alley.

It shall be the duty of the Building Inspector to notify the property owners of such buildings coming within this law and in the event of their failure to provide these exits within thirty days they shall be subject to a fine of fifty (\$50.00) dollars for the first thirty (30) days, and fifty (\$50.00) dollars for each

ten (10) days thereafter, and in the event that obstructions are found and are not removed, within twenty-four (24) hours, the tenant or tenants causing such obstructions shall be fined five (\$5.00) dollars for each twenty-four (24) hours that such obstructions remain.

CHIEF OF FIRE DEPARTMENT TO REPORT HAZARDOUS BUILDINGS, ETC.

b. Whenever in the opinion of the Chief of the Fire Department any openings in any building or buildings overlooking any other building or buildings, street or alley-ways, are liable to increase the opportunities for a dangerous spread of fire, he shall make such a report in writing to the Building Inspector, who, in turn shall investigate the condition and is authorized to cause such improvements to be made, either by the closing up of such openings, use of fire-shutters or wire glass as may minimize such danger.

In such cases the Building Inspector shall notify the property owner in writing, setting forth the required improvements, and in the event that such improvements are not completed within sixty (60) days, the owner shall be subject to a fine of Fifty (\$50.00) Dollars for the first thirty (30) days delinquency, and twenty-five (\$25.00) Dollars for each ten (10) days thereafter.

BUILDING INSPECTOR MAY MODIFY PROVISION OF CODE, ETC.

90a. Where there are practical difficulties in the way of carrying out the strict letter of this Code, the Build-

ing Inspector may vary or modify any of the provisions of this code relating to the construction, alteration or removal of any building or structure erected or to be erected upon an application to him therefor in writing by the owner or lessee of such building or structure, or his duly authorized agent; provided that the spirit of this Code shall be observed and Public Safety secured and substantial justice done; but no such variation or modification shall be granted or allowed unless the particulars of each application and of the decision of said Building Inspector thereon shall be entered upon the records of the Building Inspector's office.

RULES AND REGULATIONS.

b. The Building Inspector shall have the power to establish general rules and regulations concerning the construction, maintenance, repair or removal of walls, buildings or other structures, not inconsistent with the provisions of this Code; and he may change or revoke such rules and regulations when in his opinion it shall be necessary or desirable. All rules and regulations so made, and all modifications of same shall be recorded in a book to be kept in his office and open to public inspection, to be known as Record Book of Rules and Regulations, established by the Building Inspector. Such Rules and Regulations shall from time to time be printed in convenient form and as far as practicable be distributed to builders and contractors for their information.

RECORD OF APPLICATION.

c. The Building Inspector shall keep a record of all applications presented to him concerning, effecting or relating to the construction, alteration or removal of buildings or other structures. Such record shall include the date of the filing of each application, the name and address of the owner of the land on which the building or structure mentioned in such application is situated, the names and addresses of the architect and builder employed thereon; a designation of the premises by street number, or otherwise, sufficient to identify the same, a statement of the nature and proposed use of such structure; and a brief statement of the nature of the application, together with a memorandum of the decision of said Building Inspector upon such application, and the date of the rendition of such decision.

The record shall be kept in two classes, one for new buildings or structures and one for alterations to existing buildings or structures. Each application for a new or altered building or structure shall be respectively and consecutively numbered in the date and order of filing, and the record numbers and the application numbers shall correspond.

The books containing such records, and all plans, statements and other papers relating to any such application are hereby declared to be public records, and shall be opened to inspection at all reasonable times, but such inspection shall not include the right to copy any plan on file in the office of the Building Inspector, and the copying of any filed drawing, tracing or print is hereby forbidden.

APPEALS AND MODIFICATIONS.

91 The Building Inspector shall have power, and it shall be his duty to pass upon any question relative to the mode, manner of construction, or materials to be used in the erection or alteration of any building or other structure erected or to be erected which is included within the provisions of this Code and other ordinances, and regulations of the Building Inspector's office relating to the construction, alteration, or removal of buildings or other structures and to require that same be conformed to.

Whenever the Building Inspector to whom such questions has been submitted shall reject or refuse to approve the mode or manner of construction proposed to be followed or materials to be used in the erection or alteration of any such building or structure, or when it is claimed that the rules and regulations of the Building Inspector's office or the provisions of this Code or any of the ordinances or regulations do not apply, or that an equally good or more desirable form of construction can be employed in any specific case, or when it is claimed that the true intent and meaning of this Code or any of the ordinances and regulations have been misconstrued or wrongly interpreted, the permit applied for having been refused by the Building Inspector, and the owner or lessee of such building or structure, or his duly authorized agent, may appeal from the decision of the Building Inspector, in writing, to the Board of Public Safety; which Board shall be composed of the Mayor of the City Richmond, the City Engineer, and the Chief of the Fire Department, of which Board the Mayor shall be ex-officio chairman. In the event of the absence or inability of the Mayor, the President of the Board of Aldermen may sit on the Board in his place; and for like reasons and in like manner the First Assistant City Engineer may sit for the City Engineer, and the First Assistant Chief of the Fire Department may sit for the Chief of the Fire De-It shall be the duty of the Chairman promptly to convene the Board for the transaction of business on any appeal in writing being lodged with him from any decision of the Building Inspector. The Board shall, after hearing the evidence adduced on such appeal, either affirm, modify or reverse the decision of the Building Inspector as to them may seem best under all the circumstances of the case, and their decision shall have the same effect as if it were the decision of the Building Inspector.

The clerk to the Building Inspector shall be the clerk of the said board without additional compensation, and he shall record the proceedings of said board in a record book to be kept in the office of the Building Inspector.

VIOLATIONS AND PENALTIES.

92. The owner of any building, structure or part thereof or of any wall, or any platform, staging or floor to be
used for standing or seating purposes, violating the provisions of this Code, and any architect, civil engineer,
builder, carpenter, mason, contractor, sub-contractor,
foreman or any other person who may be employed

or assist in the commission of any such violation, and any and all persons who shall violate any of the provisions of this code or fail to comply therewith. or any requirements thereof, or who shall violate. or fail to comply with any order or regulation made thereunder, or who shall build in violation of detailed statement, or specifications or plans, submitted and approved thereunder, or of any certificate or permit issued thereunder, shall severally, for each every such violation and non-compliance, respectively. shall be liable to a fine of not less than five nor more than one hundred dollars except where special penalties have been provided in this Code, recoverable before the Police Justice of the City of Richmond, and any person thereafter, having been served with notice to remove any work done in violation of this ordinance or the regulations prescribed thereunder, within ten days after such notice, shall be liable to a fine of not less than ten nor more than one hundred dollars recoverable before the Police Justice of the City of Richmond

PROCEEDINGS AT LAW.

93 a. It shall be the duty of the Building Inspector to report to the Police Justice all violations of this Code or any order or regulation made thereunder, and when requested by the Police Justice it shall be the duty of the City Attorney to appear and prosecute all such violations of this Code or any such orders or regulations.

CITY ATTORNEY TO BRING SUITS TO ENFORCE

Provision of this Code.

b. Whenever the Building Inspector is satisfied that any building or structure, or any portion thereof, the erection, construction, or alteration, execution or repair of which is regulated, permitted or forbidden by this Code, is being erected, constructed, altered or repaired, or has been erected, constructed, altered or repaired, in violation of, or not in compliance with any of the provisions or requirements of this Code. or in violation of any detailed statement or specifications or plans submitted and approved thereunder, or of any certificate or permit issued thereunder. or that any provision or requirement of this Code, or any order or direction made thereunder, has not been complied with, or that plans and specifications have not been submitted or filed as required by this Code, the Building Inspector may in his discretion through the City Attorney, in addition to the prosecution authorized in the foregoing section, and with the approval of said attorney, institute any appropriate action or proceeding, at law or in equity, to restrain. correct or remove such violation, or the execution of any work thereon, or to restrain or correct the erection or alteration of, or to require the removal of, or to prevent the occupation or use of, the building or structure erected, constructed or altered, in violation of. or not in compliance with any of the provisions of this Code. or with respect to which the requirements of this Code, or of any order or direction made pursuant to any provisions contained in this Code shall not ' have been complied with.

In any such action or proceeding the City Attorney may at the request of the Eui ding Inspector, and on his affidavit setting forth the facts, apply to any Court of Record, in said City, or to a Judge thereof, for an order enjoining and restraining all persons from doing or causing or permitting to be done, any work in or upon such building or structure, or in or upon such part thereof as may be designated in said affidavit, or from occupying or using said building or structure or such portion thereof as may be designated in said affidavit for any purpose whatever, until the hearing and determination of said action and the entry of final judgment therein.

The Building Inspector and any officer, acting in good faith and without malice, shall not be liable for damages by reason of anything done in any such action or proceeding.

NOTICE OF VIOLATION OF CODE; SERVICE OF PAPERS.

94. All notices required by this Code to be given to any person by the Building Inspector shall be in writing and signed by him, and shall be served by the delivery of a copy thereof to the party to whom the same is addressed, or to his authorized agent or person having his property in charge, by an officer or employee of his office, or by some officer authorized by law to serve notices.

Such notice shall contain a description of the building premises or property on which such violation shall have been put or may exist, or which may be deemed unsafe or dangerous, or to which such notice or order may refer. If such owner, agent or person in charge of the property cannot be found in the City of Richmond the same may be served by publication by three successive insertions in some daily newspaper published in the City of Richmond.

DANGEROUS OR UNSAFE BUILDINGS, ETC.

95. Upon it being represented to the Police Justice by any citizen, city officer, police officer, or the building inspector that any building or part of any building, staging or other structure in the City of Richmond is dangerous or unsafe by reason of dilapidation or otherwise to persons passing upon the streets, alleys or other public places of the City of Richmond, or to persons on private property, or to adjoining property, the police justice shall issue a summons requiring the owner of such building, staging or other structure. and also the persons in possession thereof to appear before him at a time to be specified in the summons. not exceeding ten days thereafter, to contest, if they so desire, the truth of such representations, and shall also, in writing, direct the building inspector to make a careful examination of such building, staging or other structure, and by personal inspection to determine whether or not the same is dangerous and unsafe as represented and report his conclusions in the premises on the day on which the owner or occupants of said building, staging or other structure are summoned to appear, together with his recommendation in the premises; and the said inspector shall likewise personally appear before the police justice to be examined

as a witness in relation thereto, and it shall be the duty of the police justice, after considering such report and hearing said inspector on oath, if he or any party in interest so desire, and also hearing any other witnesses introduced on behalf of the City of Richmond or introduced on behalf of the owners or occupants of said building, to determine whether or not the said building, staging or other structure is, in fact, unsafe or dangerous as represented, and if found to be so unsafe and dangerous, he shall, by his order, require such owners, occupants or both, within a time to be specified in his order, either to remove the same or repair and put the same in a safe condition within a specified time not exceeding five days: however, that in case of emergency the said justice may direct the immediate removal, repair or securing of said building, staging or other structure, so that no injury may be occasioned by its collapse, giving to the owner or occupants thereof the option of proceeding with such removal or repair or to take the necessary steps for securing the same within five hours after the entry of the said order, and upon their failure so to do, he shall, in his order, direct the building inspector to proceed with the removal of the said building, or the repair or securing of the same as hereinafter directed.

Should the owner or the occupants of the said building, staging or other structure fail to remove the same in the time prescribed by the order of the justice, they, and each of them, shall be liable to a fine of not less than twenty-five nor more than one hundred dollars, which the police justice may impose after

issuing a summons requiring the said owner or occupants to show cause on a given day against the imposition of the said fine: but on the failure of such owners or occupants to remove or repair the same as required. the police justice shall at once order the removal or repair of such building, staging or other structure, and in cases of emergency, to direct the building inspector immediately to hire the necessary persons to have said building, staging, or other structure removed or repaired under his direction and supervision, or, where the exigencies of the situation will permit, with due regard to the safety of persons and property, the said building inspector shall be directed to advertise for bids for the removal or repair of such building, staging, or other structure, such advertisement to be in the manner and for the length of time by him deemed necessary, and he shall let the removal, demolition or repair of the same to the lowest bidder. materials derived from the removal or demolition of said building shall be carefully preserved, placed on the premises and sold at public auction by the building inspector, after he shall have first advertised the time and place of such sale in such manner as he may deem best, the proceeds of which sale, after paying therefrom the costs of such removal, demolition or repair he shall turn into the city treasury, which sum so paid into the city treasury shall be held by the city until the persons entitled thereto shall establish their right to the same in a manner satisfactory to the City Attorney, on whose order the same may be paid to such person.

In any case in which personal service of a notice is under this section required, if the person upon whom personal service is to be made cannot be found in the City of Richmond, such notice shall be published by three successive insertions in some daily newspaper published in the City of Richmond, and proof of such publication shall be taken and accepted in lieu of personal service.

In any case where the proceeds derived from the sale of building materials sold under this section shall not be sufficient to pay the costs of removal, demolition or repair the building inspector shall report fully in writing his transactions under the order of the police justice, which report shall show the cost of such removal, demolition or repair; the sum received by him for the building material sold and the balance due on account of such removal, demolition or repair; and the sum by such report shown to be in excess of the proceeds of sale of such materials shall be a lien on the property of the owner from which such building. staging or other structure is removed, which report if approved by the Police Justice he shall certify to the City Attorney, who shall forthwith institute proper proceedings to recover the same of the owners of the property.

RECOVERY OF BODIES UNDER FALLEN BUILDINGS.

96. In case of the falling of any building or part thereof in the City of Richmond, where persons are known or believed to be buried under the ruins thereof, it shall be the duty of the Chief Engineer of the Fire Department to cause an examination of the premises to be made for the recovery of the bodies of the killed and injured.

Whenever in making such examination, it shall be necessary to remove from the premises any debris, it shall be the duty of the heads of any and all other of the Departments of the City of Richmond, when called upon by the Building Inspector to coperate, and utilize the hands and carts and employees under their control so far as practicable and to provide a suitable and convenient dumping place for the deposit of such debris.

BUILDINGS IN IMMEDIATE DANGER OF FALLING.

97. In case there shall be in the opinion of the Building Inspector actual and immediate danger of falling of any building or part thereof so as to endanger life or property, said Euilding Inspector shall cause the necessary work to be done to render said building or part thereof temporary safe until the proper proceedings can be taken as in the case of an unsafe building as provided for in this Code; provided, the safety, of persons and property cannot be secured by temporarily closing the streets and sidewalks adjacent to such buildings, which he is hereby expressly authorized to do in such case, and the immediate removal of the occupants of such buildings and any adjacent buildings which may be endangered.

The Building Inspector is hereby authorized and empowered in such cases also where any part of a building has fallen and life is endangered by the occupation thereof, to order and require the inmates and occupants of such building or part thereof to vacate the same forthwith.

Any person refusing to vacate as required by this section shall be liable to a fine of not less than \$25.00 nor more than \$100, recoverable before the Police Justice of the City of Richmond.

STOPPAGE OF WORK ON BUILDINGS.

98. In case there shall be, in the opinion of the Building Inspector danger to life or property by reason of any defective or illegal work, or work in violation of or not in compliance with any of the provisions or requirements of this Code, the Building Inspector or such person as may be designated by him shall have the right, and he is hereby authorized and empowered to order all further work to be stopped in and about said building, and to require all persons in and about said building forthwith to vacate the same, and to cause such work to be done in or about the building as in his judgment may be necessary to remove any damage therefrom. And the Building Inspector may, when necessary for the public safety, temporarily close the side-walks and streets adjacent to said building, or part thereof, and the Police Department when called upon by the Building Inspector to cooperate, shall enforce such orders or requirements.

BADGES, UNIFORM AND AUTHORITY.

99. Suitable metal badges of office shall be provided by the Building Inspector, each badge to be numbered, for all the officials of said Department having the right to enter buildings or premises, and to be worn conspicuously by them during their hours of public service. Said badges shall be and remain the property of the City of Richmond,

The Building Inspector may prescribe a suitable uniform to be worn by each and all of the beforementioned officials during their hours of public service.

All of the officials of the Building Inspector's office so far as it may be necessary for the performance of their respective duties shall have the right to enter any building or premises in said City, upon showing their badge of office.

Invalidity of One Section Not to Invalidate Any Other.

100. The invalidity of any section or provision of this Code shall not invalidate any other section or provision thereof.

REPEALING SECTION.

101. All ordinances of the City of Richmond, affecting or relating to the construction, alteration or removal of buildings or other structures and all other ordinances or parts thereof in conflict hereherewith, are hereby repealed.

DATE WHEN ORDINANCE IS TO TAKE EFFECT.

102t. This ordinance shall take effect thirty days after is approval by the Mayor.



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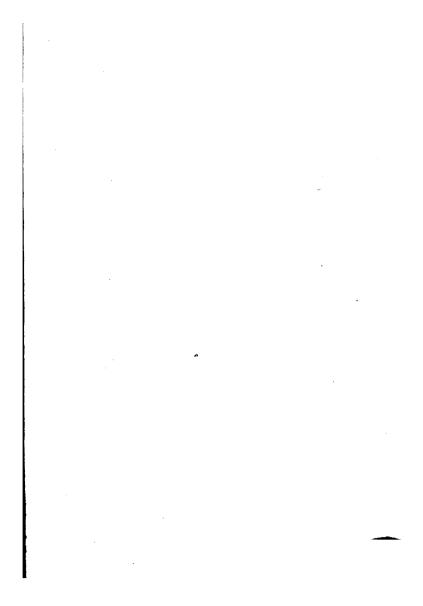
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